

174430

STIC-Biotech/ChemLib

From: Dunston, Jennifer
Sent: Friday, December 16, 2005 8:35 AM
To: STIC-Biotech/ChemLib
Subject: Sequence Search 10/659782

Please search the amino acid sequence of SEQ ID NO: 32 against the commercial nucleic acid databases.

Thank you.

Jennifer Dunston, Ph.D.
USPTO Art Unit 1636
REM 2B76
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(571) 272-2916

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Searcher: _____
Searcher Phone: _____
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Date completed: 12-20-05
Searcher Prep Time: _____
Online Time: _____

Type of Search
NA# _____ AA# _____
S/L: _____ Oligomer: _____
Encode/Transl: _____
Structure #: _____ Text: _____
Inventor: _____ Litigation: _____

Vendors and cost where applicable
STN: _____
DIALOG: _____
QUESTEL/ORBIT: _____
LEXIS/NEXIS: _____
SEQUENCE SYSTEM: _____
WWW/Internet: _____
Other (Specify): _____

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 21, 2005, 13:36:08 ; Search time 164 Seconds
(without alignments)
298.086 Million cell updates/sec

Title: US-10-659-782B-32
Perfect score: 620
Sequence: 1 MPSPTVCSSLLGLGMLDL.....PPSSRRSRKSHQSPSCSPEL 117

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications_AA_Main:
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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5	198	31.9	117	3	US-09-853-253-2
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7	198	31.9	117	3	US-09-989-723-268
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ALIGNMENTS

RESULT 1
US-10-659-782A-32
; Sequence 32, Application US/10659782A
; Publication No. US20050059015A1
; GENERAL INFORMATION:
; APPLICANT: Mintz, Liat
; TITLE OF INVENTION: Compositions, Reagents and Kits for and Methods of Diagnosing,
; FILE OF INVENTION: Monitoring and Treating Obesity and/or Diabetes
; FILE REFERENCE: 28238
; CURRENT APPLICATION NUMBER: US/10/659.782A
; CURRENT FILING DATE: 2003-09-11
; NUMBER OF SEQ ID NOS: 42
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 32
; LENGTH: 116
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-659-782A-32

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RESULT 2
US-10-294-191A-3
; Sequence 3, Application US/10294191A
; Publication No. US20030211512A1
; GENERAL INFORMATION:
; APPLICANT: Rothschild, Max F.
; APPLICANT: Kim, Kwan Suk
; APPLICANT: Anderson, Lloyd L.
; TITLE OF INVENTION: Novel Ghrelin Alleles and Use of the Same for Genetically Typing
; FILE REFERENCE: P05408US1
; CURRENT APPLICATION NUMBER: US/10/294.191A
; CURRENT FILING DATE: 2002-11-14
; PRIOR APPLICATION NUMBER: US 60/333.222
; PRIOR FILING DATE: 2001-11-14
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 60

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; TYPE: PRT
; ORGANISM: Human
US-10-294-191A-3

Query Match          31.9%; Score 198; DB 4; Length 60;
Best Local Similarity 88.6%; Pred. No. 9e-14;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

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RESULT 3
US-10-477-506-2
; Sequence 2, Application US/10477506
; Publication No. US20040157227A1
; GENERAL INFORMATION:
; APPLICANT: Chopin, Lisea K
; APPLICANT: Jeffery, Penelope L
; APPLICANT: Herington, Adrian C
; TITLE OF INVENTION: REPRODUCTIVE CANCER DIAGNOSIS AND THERAPY
; FILE REFERENCE: 225181
; CURRENT APPLICATION NUMBER: US/10/477,506
; CURRENT FILING DATE: 2003-11-10
; PRIOR APPLICATION NUMBER: PR9567
; PRIOR FILING DATE: 2001-12-17
; PRIOR APPLICATION NUMBER: PR4919
; PRIOR FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: PCT/AU02/000582
; PRIOR FILING DATE: 2002-05-10
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: Patent in version 3.1
; SEQ ID NO 2
; LENGTH: 91
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-477-506-2

Query Match          31.9%; Score 198; DB 4; Length 91;
Best Local Similarity 88.6%; Pred. No. 1.5e-13;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

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Db 1 MPSPGTVCSSLLGLMLWLDLWDLAMAGSSFLSPHQRVQVRPPHKAP 44

RESULT 4
US-09-794-987-2
; Sequence 2, Application US/09794987
; Patent No. US20010041791A1
; GENERAL INFORMATION:
; APPLICANT: Sheppard, Paul O.
; APPLICANT: Deisher, Theresa A.
; TITLE OF INVENTION: MORILIN HOMOLOGS
; NUMBER OF SEQUENCES: 7
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: ZymoGenetics, Inc.
; STREET: 1201 Eastlake Avenue East
; CITY: Seattle
; STATE: WA
; COUNTRY: USA
; ZIP: 98102
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/794,987
; FILING DATE: 27-Feb-2001
; CLASSIFICATION: <Unknown>
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; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/046,479
; FILING DATE: <Unknown>
; ATTORNEY/AGENT INFORMATION:
; NAME: Sawislak, Deborah A
; REGISTRATION NUMBER: 37,438
; REFERENCE/DOCKET NUMBER: 97-04
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 206-442-6672
; TELEFAX: 206-442-6678
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 117 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: internal
; SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-09-794-987-2

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; Sequence 2, Application US/09853253
; Patent No. US20020055156A1
; GENERAL INFORMATION:
; APPLICANT: JASPERS, STEPHEN
; APPLICANT: SHEPPARD, PAUL
; APPLICANT: DEISHER, THERESA
; APPLICANT: BISHOP, PAUL
; TITLE OF INVENTION: Zsig33-like Peptides
; FILE REFERENCE: 00-30
; CURRENT APPLICATION NUMBER: US/09/853,253
; CURRENT FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: 60/203,300
; PRIOR FILING DATE: 2000-05-11
; NUMBER OF SEQ ID NOS: 28
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 2
; LENGTH: 117
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-853-253-2

Query Match          31.9%; Score 198; DB 3; Length 117;
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; Sequence 268, Application US/09989722
; Patent No. US20020072067A1
; GENERAL INFORMATION:
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Baker, Kevin P.
; APPLICANT: Botstein, David
; APPLICANT: Desnovers, Luc
; APPLICANT: Eaton, Dan L.
```

APPLICANT: Ferrara, Napoleone
APPLICANT: Fong, Sherman
APPLICANT: Gerber, Hanspeter
APPLICANT: Gerritsen, Mary E.
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J.
APPLICANT: Grimaldi, J. Christopher
APPLICANT: Gurney, Austin L.
APPLICANT: Kljavin, Ivar J.
APPLICANT: Napier, Mary A.
APPLICANT: Pan, James
APPLICANT: Paoni, Nicholas F.
APPLICANT: Roy, Margaret Ann
APPLICANT: Stewart, Timothy A.
APPLICANT: Tumas, Daniel
APPLICANT: Watanabe, Colin K.
APPLICANT: Williams, P. Mickey
APPLICANT: Wood, William I.
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
FILE REFERENCE: P2730PLC63
CURRENT APPLICATION NUMBER: US/09/989,722
CURRENT FILING DATE: 2001-11-19
PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
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46	PRIOR FILING DATE: 1998-07-09

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RESULT 7
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; Sequence 268, Application US/09389723
; Patent No. US2002072092A1
; GENERAL INFORMATION:
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Baker, Kevin P.
; APPLICANT: Botstein, David
; APPLICANT: Desnayers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Fong, Sherman
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Griscen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, J. Christopher

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APPLICANT: Tumas, Daniel
APPLICANT: Watanabe, Colin K.
APPLICANT: Williams, P. Mickey
APPLICANT: Wood, William I.
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P27301C56
CURRENT APPLICATION NUMBER: US/09/989,279
CURRENT FILING DATE: 2001-11-19
PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
PRIOR APPLICATION NUMBER: 60/062250
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PRIOR FILING DATE: 1998-07-07
PRIOR APPLICATION NUMBER: 60/092182
PRIOR FILING DATE: 1998-07-09

Query Match 31.9%; Score 198; DB 3; Length 117;
Best Local Similarity 88.6%; Pred. No. 28-13; Mismatches 0; Indels 5; Gaps 0;
Matches 39; Conservative 0;

QY 1 MPSPTVCSLLLGLMLDLAMAGSFLSPERQVQVRPPHPKAP 44
DB 1 MPSPTVCSLLLGLMLDLAMAGSFLSPERQVQVRPPHPKAP 44

RESULT 9
US-09-989-727-268
Sequence 268 Application US/09989727
Patent No. US20020072497A1
GENERAL INFORMATION:
APPLICANT: Ashkenazi, Avi J.
APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan L.
APPLICANT: Ferrara, Napoleone
APPLICANT: Fong, Sherman
APPLICANT: Gerber, Hanspeter
APPLICANT: Gerritsen, Mary E.
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J.
APPLICANT: Grimaldi, J. Christopher
APPLICANT: Gurney, Austin L.
APPLICANT: Kljavin, Ivar J.
APPLICANT: Napier, Mary A.
APPLICANT: Pan, James
APPLICANT: Paoni, Nicholas F.
APPLICANT: Roy, Margaret Ann
APPLICANT: Stewart, Timothy A.
APPLICANT: Tumas, Daniel
APPLICANT: Watanabe, Colin K.
APPLICANT: Williams, P. Mickey
APPLICANT: Wood, William I.
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic Acids Encoding the Same

FILE REFERENCE: P2730P1C65
CURRENT APPLICATION NUMBER: US/09/989.727
CURRENT FILING DATE: 2001-11-19
PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
PRIOR APPLICATION NUMBER: 60/062250
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Query Match      31.9%; Score 198; DB 3; Length 117;
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; GENERAL INFORMATION:
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Baker, Kevin P.
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Fong, Sherman
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, J. Christopher
; APPLICANT: Gurney, Austin L.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Napier, Mary A.
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; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tamas, Daniel
; APPLICANT: Watanabe, Colin K.
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William I.
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: P27301C57
; CURRENT APPLICATION NUMBER: US/09/989,732
; PRIOR FILING DATE: 2001-11-19
; PRIOR APPLICATION NUMBER: 60/049787
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Query Match 31.9%; Score 198; DB 3; Length 117;
Best Local Similarity 88.6%; Pred. No. 2e-13;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

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US-09-991-073-268
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; Patent No. US20020127576A1
; GENERAL INFORMATION:
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Baker, Kevin P.
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Fong, Sherman
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Geritsen, Mary E.
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; APPLICANT: Grimaldi, J. Christopher
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; APPLICANT: Napier, Mary A.
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; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K.
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William I.
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: P2730P1C15
; CURRENT APPLICATION NUMBER: US/09/991,073
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; Patent No. US20020137075A1
; GENERAL INFORMATION:
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Baker, Kevin P.
; APPLICANT: Botstein, David
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; APPLICANT: Napier, Mary A.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tunas, Daniel
; APPLICANT: Watanabe, Colin K.
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William I.
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: P2730P1C25
; CURRENT APPLICATION NUMBER: US/09/993,604
; PRIOR FILING DATE: 2001-11-14
; PRIOR APPLICATION NUMBER: 60/049787
; PRIOR FILING DATE: 1997-06-16
; PRIOR APPLICATION NUMBER: 60/062250
; PRIOR FILING DATE: 1997-10-17
; PRIOR APPLICATION NUMBER: 60/065186
; PRIOR FILING DATE: 1997-11-12
; PRIOR APPLICATION NUMBER: 60/065311
; PRIOR FILING DATE: 1997-11-13
; PRIOR APPLICATION NUMBER: 60/066770
; PRIOR FILING DATE: 1997-11-24
; PRIOR APPLICATION NUMBER: 60/075945
; PRIOR FILING DATE: 1998-02-25
; PRIOR APPLICATION NUMBER: 60/078910
; PRIOR FILING DATE: 1998-03-20
; PRIOR APPLICATION NUMBER: 60/083322
; PRIOR FILING DATE: 1998-04-28
; PRIOR APPLICATION NUMBER: 60/084600
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/087106
; PRIOR FILING DATE: 1998-05-28
; PRIOR APPLICATION NUMBER: 60/087607
; PRIOR FILING DATE: 1998-06-02
; PRIOR APPLICATION NUMBER: 60/087609
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; PRIOR APPLICATION NUMBER: 60/088029
; PRIOR FILING DATE: 1998-06-04
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; PRIOR FILING DATE: 1998-06-04
; PRIOR APPLICATION NUMBER: 60/088033
; PRIOR FILING DATE: 1998-06-04
; PRIOR APPLICATION NUMBER: 60/088326
; PRIOR FILING DATE: 1998-06-04
; PRIOR APPLICATION NUMBER: 60/088167
; PRIOR FILING DATE: 1998-06-05
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; PRIOR FILING DATE: 1998-06-05
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; PRIOR APPLICATION NUMBER: 60/088217
; PRIOR FILING DATE: 1998-06-05
; PRIOR APPLICATION NUMBER: 60/088655
; PRIOR FILING DATE: 1998-06-09
; PRIOR APPLICATION NUMBER: 60/088734
; PRIOR FILING DATE: 1998-06-10
; PRIOR APPLICATION NUMBER: 60/088738
; PRIOR FILING DATE: 1998-06-10
; PRIOR APPLICATION NUMBER: 60/088742
; PRIOR FILING DATE: 1998-06-10
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; PRIOR FILING DATE: 1998-06-10
; PRIOR APPLICATION NUMBER: 60/088824
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; PRIOR APPLICATION NUMBER: 60/089440
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; PRIOR FILING DATE: 1998-06-17
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;; PRIOR APPLICATION NUMBER: 60/090694
;; PRIOR FILING DATE: 1998-06-25
;; PRIOR APPLICATION NUMBER: 60/090695
;; PRIOR FILING DATE: 1998-06-25
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;; PRIOR APPLICATION NUMBER: 60/090862
;; PRIOR FILING DATE: 1998-06-26
;; PRIOR APPLICATION NUMBER: 60/090863
;; PRIOR FILING DATE: 1998-06-26
;; PRIOR APPLICATION NUMBER: 60/091360
;; PRIOR FILING DATE: 1998-07-01
;; PRIOR APPLICATION NUMBER: 60/091478
;; PRIOR FILING DATE: 1998-07-02
;; PRIOR APPLICATION NUMBER: 60/091544
;; PRIOR FILING DATE: 1998-07-01
;; PRIOR APPLICATION NUMBER: 60/091519
;; PRIOR FILING DATE: 1998-07-02
;; PRIOR APPLICATION NUMBER: 60/091626
;; PRIOR FILING DATE: 1998-07-02
;; PRIOR APPLICATION NUMBER: 60/091633
;; PRIOR FILING DATE: 1998-07-02
;; PRIOR APPLICATION NUMBER: 60/091978
;; PRIOR FILING DATE: 1998-07-07
;; PRIOR APPLICATION NUMBER: 60/091982
;; PRIOR FILING DATE: 1998-07-07
;; PRIOR APPLICATION NUMBER: 60/092182
;; PRIOR FILING DATE: 1998-07-09

Query Match 31.9%; Score 198; DB 3; Length 117;
Best Local Similarity 88.6%; Pred. No. 28-13;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
QY 1 MPSPGTVCSSLLGLMLDLAVAGSSFLSPFHQVQVRPPKAP 44
DB 1 MPSPGTVCSSLLGLMLDLAVAGSSFLSPFHQVQVRPPKAP 44

LSPFHQVQV 37

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 21, 2005, 13:25:12 ; Search time 187 Seconds
(without alignments)

274.905 Million cell updates/sec

Title: US-10-659-782b-32

Perfect score: 620

Sequence: 1 MPSPGTVCGLLLGLMLDL.....PPSRERRRSHQSPSPSL 117

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

A_Geneseq 21:*

1: Geneseq1980s:*

2: Geneseq1990s:*

3: Geneseq2000s:*

4: Geneseq2001s:*

5: Geneseq2002s:*

6: Geneseq2003as:*

7: Geneseq2003bs:*

8: Geneseq2004s:*

9: Geneseq2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	605.5	97.7	116	9	ADY78074 Human ghr
2	198	31.9	60	8	ADK66754 Human ghr
3	198	31.9	91	6	AAE33410 Human exo
4	198	31.9	117	2	AAW87991 Protein d
5	198	31.9	117	3	AAW87236 Human sig
6	198	31.9	117	4	AAE20101 Zsig33 pr
7	198	31.9	117	4	AAE26249 Human zsi
8	198	31.9	117	4	AAW38890 Human pol
9	198	31.9	117	4	AAE60511 Human ghr
10	198	31.9	117	5	ABB78319 Amino aci
11	198	31.9	117	5	AAE23838 Human zsi
12	198	31.9	117	5	AAE15883 Human zsi
13	198	31.9	117	6	ABU58046 Human PRO
14	198	31.9	117	6	ABU59124 Novel hum
15	198	31.9	117	6	ABU82636 Human sec
16	198	31.9	117	6	ABU17836 Novel hum
17	198	31.9	117	6	ABU60555 Human sec
18	198	31.9	117	6	ABU13937 Human PRO
19	198	31.9	117	6	ABU81090 Human PRO
20	198	31.9	117	6	ABU72522 Novel hum
21	198	31.9	117	6	ABU66790 Human PRO
22	198	31.9	117	6	ABU59871 Novel sec
23	198	31.9	117	6	ABU59271 Human sec
24	198	31.9	117	6	ABO25968 Human PRO

25	198	31.9	117	6	ABO25061 Human sec
26	198	31.9	117	6	ABU58977 Human sec
27	198	31.9	117	6	ABU92355 Novel hum
28	198	31.9	117	6	AAE33409 Human pre
29	198	31.9	117	6	ABU59420 Novel hum
30	198	31.9	117	6	ABU67066 Human sec
31	198	31.9	117	6	ABU92186 Novel hum
32	198	31.9	117	6	ABU10892 Human PRO
33	198	31.9	117	6	ABU81644 Human sec
34	198	31.9	117	6	ABU88583 Human sec
35	198	31.9	117	6	ABO34097 Human PRO
36	198	31.9	117	6	ADA45961 Novel hum
37	198	31.9	117	6	ADA76392 Human PRO
38	198	31.9	117	6	ADA19042 Human PRO
39	198	31.9	117	6	ADA61665 Homo sapi
40	198	31.9	117	6	ADB19450 Novel hum
41	198	31.9	117	6	ADB27991 Human PRO
42	198	31.9	117	6	ADA86470 Novel hum
43	198	31.9	117	6	ADB16034 Human PRO
44	198	31.9	117	6	ADA37779 Human sec
45	198	31.9	117	6	ADA47820 Human PRO

ALIGNMENTS

RESULT 1

ADY78074

ID ADY78074 standard; protein; 116 AA.

XX ADY78074;

XX AC ADY78074;

XX DT 02-JUN-2005 (first entry)

XX DE Human ghrelin variant 2 protein, SEQ ID NO: 32.

XX KW Diagnosis; obesity; anorectic; nutritional disorder; diabetes;

KW antidiabetic; endocrine disease; metabolic disorder;

KW gastrointestinal disease; drug screening; gene therapy; ghrelin.

XX OS Homo sapiens.

XX XX

XX FH Key Location/Qualifiers

XX FT Misc-difference 64.65

XX FT /note= "Encoded by CATCTCTGG"

XX PN US2005059015-A1.

XX PD 17-MAR-2005.

XX PF 11-SEP-2003; 2003US-00659782.

XX PR 11-SEP-2003; 2003US-00659782.

XX PA (MINT/) MINTZ L.

XX PI Mintz L;

XX DR WPI: 2005-240894/25.

XX DR N-PSDB; ADY78053.

XX XX

XX PT New isolated nucleic acid and encoded amino acid sequences useful for

PT diagnosing, monitoring and treating obesity and/or diabetes, or in drug

PT screening purposes.

XX XX

XX PS Claim 32; SEQ ID NO 32; 74pp; English.

XX CC The invention relates to alternative splice variants of the obesity

CC and/or diabetes related genes and their corresponding proteins. The

CC invention also relates to compositions, reagents, kits and methods for

CC diagnosing, monitoring and treating obesity and/or diabetes. The

CC composition and methods are useful for diagnosing, monitoring and

CC treating obesity and/or diabetes. These may also be used in drug

CC screening purposes and in gene therapy. The present sequence is the human
CC ghrelin (GRL) variant protein. This protein is encoded by an obesity and
CC diabetes related gene.
XX
SQ Sequence 116 AA;

Query Match 97.7%; Score 605.5; DB 9; Length 116;
Best Local Similarity 99.1%; Pred. No. 8.3e-61; Indels 1; Gaps 1;
Matches 116; Conservative 0; Mismatches 0;

Qy 1 MPSPTVCSLLLLGMLDLAMAGSSFLSPHQVQVRPPHAPVLPALFLSNQLCDLE 60
Db 1 MPSPTVCSLLLLGMLDLAMAGSSFLSPHQVQVRPPHAPVLPALFLSNQLCDLE 60

Qy 61 QQRH-WASVFSQSTKDSGLTVSGRTWGLRVNLNLPSPSSRRSRSHQSPSEL 117
Db 61 QQRH-WASVFSQSTKDSGLTVSGRTWGLRVNLNLPSPSSRRSRSHQSPSEL 116

RESULT 2

ADK66754
ID ADK66754 standard; protein; 60 AA.

AC ADK66754;

DT 06-MAY-2004 (first entry)

DE Human ghrelin protein #1.

KW Growth; appetite; fatness; genotype; polymorphism; ghrelin protein;
XX breeding; human.

OS Homo sapiens.

PN US2003211512-A1.

PD 13-NOV-2003.

PF 14-NOV-2002; 2002US-00294191.

PR 14-NOV-2001; 2001US-0333222P.

PA (ROTH/) ROTHSCCHILD M F.

PA (KIMK/) KIM K.

PA (ANDE/) ANDERSON L L.

PI Rothschild MF, Kim K, Anderson LL;

DR WPI; 2004-010667/01.

XX Screening animals (i.e. pigs) to determine those more likely to produce
PT desired growth, appetite and fatness to optimize breeding and selection
PT techniques comprises detecting the presence of a polymorphism in the
PT Ghrelin gene.

XX Disclosure; SEQ ID NO 3; 24pp; English.

XX The present invention relates to a method of screening animals to
CC determine those more likely to produce desired growth, appetite and
CC fatness which involves obtaining a sample of genetic material from the
CC animal and assaying for the presence of a genotype in the animal which is
CC associated with favourable growth, appetite and fatness, the genotype
CC characterised by a polymorphism in the ghrelin gene. The composition and
CC methods are useful in screening animals (i.e. pigs) to determine those
CC more or less likely to produce desired growth, appetite and fatness to
CC optimise breeding and selection techniques. The present sequence is human
CC ghrelin protein of the invention.

XX Sequence 60 AA;

Query Match 31.9%; Score 198; DB 8; Length 60;
Best Local Similarity 88.6%; Pred. No. 1.2e-14;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

Qy 1 MPSPTVCSLLLLGMLDLAMAGSSFLSPHQVQVRPPHAP 44
Db 1 MPSPTVCSLLLLGMLDLAMAGSSFLSPHQVQVRPPHAP 44

RESULT 3

AAE33410
ID AAE33410 standard; protein; 91 AA.

XX AAE33410;

DT 02-APR-2003 (first entry)

DE Human exon 3-deleted ghrelin protein.

KW Ghrelin; preproghrelin; GHS-R 1b; benign prostatic hyperplasia; therapy;
XX breast; cervical; uterine; choriocarcinoma; prostate; ovary; cytostatic;
XX cancer; human.

OS Homo sapiens.

PN WO200290387-A1.

PD 14-NOV-2002.

PF 10-MAY-2002; 2002WO-AU000582.

PR 10-MAY-2001; 2001AU-00004919.

PR 17-DEC-2001; 2001AU-00009567.

PA (UYQU-) UNIV QUEENSLAND TECHNOLOGY.

XX Chopin LK, Jeffery PL, Herington AC;

XX WPI; 2003-111957/10.

DR N-PSDB; AAD50726.

XX Identifying a cancer cell or tissue for treating prostate, ovarian,
PT breast cancer, or benign prostatic hyperplasia, by detecting the
PT expression of a ghrelin, an exon-3 deleted preproghrelin and/or a GHS-R
PT 1b proteins or nucleic acids.

XX Claim 14; Page 34; 50pp; English.

XX The invention relates to a method for identifying a cancer cell or tissue
CC of the reproductive system by detecting expression of a ghrelin, an exon-
CC 3 deleted preproghrelin and/or a GHS-R 1b proteins or nucleic acids. The
CC antibodies, exon 3-deleted form of preproghrelin and antagonists are
CC useful for treating cancer of the reproductive system such as prostate,
CC ovarian, breast, cervical or uterine cancer, choriocarcinoma or benign
CC prostatic hyperplasia. The present sequence is human exon 3-deleted
CC ghrelin protein

XX Sequence 91 AA;

Query Match 31.9%; Score 198; DB 6; Length 91;
Best Local Similarity 88.6%; Pred. No. 2e-14; Indels 0; Gaps 0;
Matches 39; Conservative 0; Mismatches 5;

Qy 1 MPSPTVCSLLLLGMLDLAMAGSSFLSPHQVQVRPPHAP 44
Db 1 MPSPTVCSLLLLGMLDLAMAGSSFLSPHQVQVRPPHAP 44

RESULT 4

AAW87991
ID AAW87991 standard; protein; 117 AA.

XX AAW87991;

DT 07-APR-1999 (first entry)

XX

DE Protein designated zsig33.
 XX Zsig33; gastric motility; gastrointestinal inflammation; reflux disease;
 KW nutrient absorption regulation; obesity; metabolic disorder.
 KW
 XX Homo sapiens.
 OS
 FH Key Location/Qualifiers
 FT Peptide 1..23
 FT /note= "signal peptide"
 FT Protein 24..117
 FT /note= "mature protein"
 XX
 XX WO9842840-A1.
 XX
 XX 01-OCT-1998.
 XX
 XX 23-MAR-1998; 98WO-US005620.
 XX
 XX 24-MAR-1997; 97US-0041102P.
 XX
 XX 24-MAR-1997; 97US-00822897.
 XX
 XX (ZYMO) ZYMOGENETICS INC.
 XX
 XX Sheppard PO, Deisher TA;
 XX
 XX WPI: 1999-070071/06.
 XX
 XX N-PSDB; AAX04550.
 XX
 XX Human polypeptide having homology to motilin, zsig33 - useful e.g. to
 FT treat gastrointestinal motility disorders, obesity etc. and to identify
 FT antagonists to treat gastrointestinal hypermotility.
 XX
 XX Claim 13; Page 55-56; 69pp; English.
 XX
 XX The present sequence represents a protein designated Zsig33. The nucleic
 CC acids are strongly expressed in stomach tissue. The polypeptide (or
 CC allelic variants/orologs) can be used to stimulate gastric motility,
 CC measured as increased transit time or gastric emptying of an ingested
 CC substance in mammals. The products are used to treat disorders associated
 CC with gastrointestinal cell contractility, secretion of digestive
 CC enzymes/acids, gastrointestinal motility, recruitment of digestive
 CC enzymes, gastrointestinal inflammation, reflux disease and nutrient
 CC absorption regulation. Zsig33 polypeptides may also be important
 CC neurologically, since the family of gut-brain peptides to which the
 CC homologous protein motilin belongs has been associated with neurological
 CC and CNS functions. They may therefore be used e.g. to regulate satiety or
 CC treat obesity and other metabolic disorders where neurological feedback
 CC modulates nutritional absorption. They are useful to identify zsig33
 CC agonists, antagonists and ligands and to produce antibodies
 XX
 XX Sequence 117 AA;
 SQ
 Query Match 31.9%; Score 198; DB 2; Length 117;
 Best Local Similarity 88.6%; Pred. No. 2.8e-14;
 Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
 QY 1 MPSPTVCSLLLLGLMLDLAMAGSSFLSPHQVQRPHPKAP 44
 DB 1 MPSPTVCSLLLLGLMLDLAMAGSSFLSPHQVQRPHPKAP 44
 RESULT 5
 AAY87236
 ID AAY87236 standard; protein; 117 AA.
 XX
 XX AAY87236;
 XX
 XX 11-MAY-2000 (first entry)
 DT
 XX Human signal peptide containing protein HSPP-13 SEQ ID NO:13.
 DE
 XX Human; signal peptide-containing protein; HSPP; diagnosis; cancer;
 KW

KW inflammation; cardiovascular disease; anticancer; anti-inflammatory;
 KW antimicrobial; nootropic; neuroprotective; cardiovascular; hepatotropic;
 KW antiasthmatic; gene therapy; cell proliferation; neurological disorder;
 KW reproductive disorder; developmental disorder; arteriosclerosis;
 KW cirrhosis; psoriasis; acquired immune deficiency syndrome; anaemia;
 KW asthma; Crohn's disease; infection; Alzheimer's disease; schizophrenia;
 KW Parkinson's disease; Huntington's diseases; ovulatory defect;
 KW muscular dystrophy.
 XX
 XX Homo sapiens.
 OS
 XX WO200000610-A2.
 PN
 XX
 XX 06-JAN-2000.
 XX
 XX 25-JUN-1999; 99WO-US014484.
 XX
 XX 26-JUN-1998; 98US-0090762P.
 XX
 XX 31-JUL-1998; 98US-0094983P.
 PR
 XX 01-OCT-1998; 98US-0102686P.
 PR
 XX 11-DEC-1998; 98US-0112129P.
 XX
 XX (INCY-) INCYTE PHARM INC.
 PA
 XX
 XX Lal P, Tang YT, Gorgone GA, Corley NC, Guegler KJ, Baughn MR;
 FI Akerblom IE, Au-Young J, Yue H, Patterson C, Reddy R, Hillman JL;
 PI Bandman O;
 XX
 XX WPI: 2000-160673/14.
 DR
 XX N-PSDB; AAZ98121.
 DR
 XX
 XX New human signal peptide-containing proteins useful in treatment,
 FT prevention and diagnosis of e.g. cancer, inflammation and cardiovascular
 FT disease.
 PT
 PT Claim 1; Page 168-169; 327pp; English.
 XX
 XX AAZ98109 to AAZ98242 encode AAY87224 to AAY87357 which represent the
 CC human signal peptide-containing proteins HSPP-1 to HSPP-134. HSPPs have
 CC anticancer, anti-inflammatory, antimicrobial, nootropic, hepatotropic,
 CC neuroprotective, cardiovascular and antiasthmatic activities, and can be
 CC used in gene therapy. HSPPs can be used to treat or prevent disorders
 CC associated with decreased activity or function of HSPP. Antagonists of
 CC HSPP are used to treat or prevent disorders associated with increased
 CC activity or function of HSPP. Such diseases include cell proliferation
 CC (including cancer), inflammation, cardiovascular, neurological,
 CC reproductive or developmental disorders. (e.g. arteriosclerosis,
 CC cirrhosis, psoriasis, acquired immune deficiency syndrome, anaemia,
 CC asthma, Crohn's disease, microbial or other infections, congestive or
 CC ischaemic heart disease, Alzheimer's, Parkinson's or Huntington's
 CC diseases, schizophrenia, ovulatory defects, muscular dystrophy). HSPP
 CC nucleic acids can be used for the recombinant production of HSPP, for
 CC detecting HSPP in standard hybridisation and amplification assays (for
 CC diagnosis and monitoring), in gene therapy, as antisense, triplex-forming
 CC or ribozyme therapeutics, for detecting related sequences or genetic
 CC variations, and for chromosomal mapping. HSPP are also used to raise
 CC specific antibodies (Ab) and to screen for agonists and antagonists
 CC (potential therapeutic agents). Ab are used to diagnose, or monitor, HSPP
 CC -related diseases (in usual immunoassays), as therapeutic antagonists, in
 CC competitive drug screens, and for purification of HSPP from natural
 CC sources
 XX
 XX Sequence 117 AA;
 SQ
 Query Match 31.9%; Score 198; DB 3; Length 117;
 Best Local Similarity 88.6%; Pred. No. 2.8e-14;
 Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
 QY 1 MPSPTVCSLLLLGLMLDLAMAGSSFLSPHQVQRPHPKAP 44
 DB 1 MPSPTVCSLLLLGLMLDLAMAGSSFLSPHQVQRPHPKAP 44

```
RESULT 6
AAB20101
ID AAB20101 standard; protein; 117 AA.
XX
XX AAB20101;
AC
XX
XX 23-APR-2001 (first entry)
XX
XX Zsig33 protein.
DE
XX
XX SGIP; zsig33; anorectic; antidiabetic; somatotropin; somatomedin-C;
KW nutritional absorption modulator; growth hormone secretagogue; therapy;
KW human.
XX
XX Homo sapiens.
OS
XX
XX Key Location/Qualifiers
FH Peptide 1..23
FT /label= Signal_peptide
FT Protein 24..117
FT /label= Mature_protein
FT Peptide 24..34
FT /label= SGIP_peptide
FT /note= "this peptide is claimed in Claim 1"
XX
XX WO200100830-A1.
PN
XX
XX 04-JAN-2001.
PD
XX
XX 30-JUN-2000; 2000WO-US018306.
XX
XX 30-JUN-1999; 99US-00345157.
XX
XX (ZYMO ) ZYMOGENETICS INC.
PA
XX
XX Sheppard PO, Jaspers SR, Deisher TA, Bishop PD;
PI
XX
XX WPI: 2001-123010/13.
DR
XX N-PSDB; AAF30033.
XX
XX Novel variants of SGIP peptides for modulating contractility in duodenum
PT or jejunum tissue, pancreatic secretion of hormones and digestive
PT enzymes, inducing growth hormone secretion or modulating gastric
PT emptying.
XX
XX Disclosure; 54; 61pp; English.
XX
XX The present sequence is that of zsig33, a secreted protein with homology
CC to motilin (see AAB20102). Zsig33 is expressed at high levels in the
CC stomach, and at lower levels in the small intestine and pancreas. A novel
CC peptide fragment of zsig33, termed SGIP (see AAB20100), is claimed. SGIP
CC is a ligand for growth hormone secretagogue receptor, and is therefore
CC useful for modulating secretion of growth hormone and insulin like growth
CC factor 1. SGIP, and variant SGIP peptides, are used in claimed methods
CC for stimulating contractility in duodenum or jejunum tissue, modulating
CC pancreatic secretion of hormones and digestive enzymes, inducing growth
CC hormone secretion, and modulating gastric emptying
XX
XX Sequence 117 AA;
XX
XX Query Match 31.9%; Score 198; DB 4; Length 117;
XX Best Local Similarity 88.6%; Pred. No. 2.8e-14;
XX Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
XX
XX 1 MPSPTVCSLLLLGLMGLDLAMAGSSFLSPHQVQVRPPHPK 44
QY |||||
DB 1 MPSPTVCSLLLLGLMGLDLAMAGSSFLSPHQVQVRPPHPK 44
|||

RESULT 7
AAB62649
ID AAB62649 standard; protein; 117 AA.
XX
```

```
AC AAB62649;
XX
XX 23-JUL-2001 (first entry)
XX
XX Human zsig33 polypeptide.
DE
XX
XX zsig33; signal transduction; hormone; enzyme; neural development;
KW gastric contractility; nutrient uptake; digestive; pancreatic; human;
KW insulin-like growth factor-I; growth hormone; bone; gastrointestinal;
KW glucose; osteopathic; anorectic; vulnerary; immunomodulator; GHS-R;
KW G-protein coupled receptor.
XX
XX Homo sapiens.
OS
XX
XX Key Location/Qualifiers
FH Peptide 24..37
FT /note= "specifically claimed fragment that binds to the
FT GHS-R"
XX
XX WO200138355-A2.
PN
XX
XX 31-MAY-2001.
PD
XX
XX 22-NOV-2000; 2000WO-US032074.
XX
XX 22-NOV-1999; 99US-0166765P.
XX
XX (ZYMO ) ZYMOGENETICS INC.
PA
XX
XX Sheppard PO, Jaspers SR, Deisher TA, Bishop PD;
PI
XX
XX WPI: 2001-355879/37.
DR
XX N-PSDB; AAF83678.
XX
XX Forming reversible peptide receptor complex for purifying cell and
PT peptides, stimulating signal transduction and modulating hormone
PT secretion, involves contacting a receptor with zsig33 polypeptide.
XX
XX Claim 1; Page 93-94; 111pp; English.
XX
XX The invention relates to a method of forming a reversible peptide-
CC receptor complex that involves providing an immobilized receptor, and
CC contacting the receptor with a zsig33 peptide (comprising residues 24-37
CC of AAB62649), where the receptor binds to the zsig33 peptide. The method
CC is useful for purifying cells, purifying a peptide, stimulating signal
CC transduction in a cell expressing a receptor. It is also useful for
CC modulating secretion of hormones, neural development and/or utilization,
CC gastric contractility, nutrient uptake, secretion of digestive and
CC pancreatic enzymes and hormones, secretion of insulin-like growth factor
CC -I, secretion of non-zsig33 proteins. It is useful for modulating growth
CC hormone secretion in a mammal having a disease associated with abnormal
CC levels of growth hormone, such as osteoporosis, bone repair, bone
CC remodeling, low osteoblast levels, cartilage repair and remodeling,
CC skeletal dysplasia, immune suppression, obesity, growth retardation,
CC protein catabolic responses after surgery, cachexia, protein loss,
CC dwarfism, wound healing and ovulation induction, treating a mammal having
CC a metabolic disorder requiring neurological feedback, such as satiety
CC regulation, glucose absorption and metabolism and neuropathy-associated
CC gastrointestinal disorders, and stimulating glucose-induced insulin
CC release in a mammal. The present sequence represents the human zsig33
CC polypeptide, a peptide ligand for the G-protein coupled receptor, GHS-R
XX
XX Sequence 117 AA;
XX
XX Query Match 31.9%; Score 198; DB 4; Length 117;
XX Best Local Similarity 88.6%; Pred. No. 2.8e-14;
XX Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
XX
XX 1 MPSPTVCSLLLLGLMGLDLAMAGSSFLSPHQVQVRPPHPK 44
QY |||||
DB 1 MPSPTVCSLLLLGLMGLDLAMAGSSFLSPHQVQVRPPHPK 44
|||
```


RESULT 8

AA38890
ID AAM38890 standard; protein; 117 AA.
XX
AC AAM38890;
XX
DT 22-OCT-2001 (first entry)
XX
DE Human polypeptide SEQ ID NO 2035.
XX
KW Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW peripheral nervous system; neuropathy; central nervous system; CNS;
KW Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
KW amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
KW chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW leukaemia.
XX
OS Homo sapiens.
XX
PN WO200153312-A1.
XX
PD 26-JUL-2001.
XX
PF 26-DEC-2000; 2000WO-US034263.
XX
PR 23-DEC-1999; 99US-00471275.
PR 21-JAN-2000; 2000US-00488725.
PR 25-APR-2000; 2000US-00552317.
PR 20-JUN-2000; 2000US-00598042.
PR 19-JUL-2000; 2000US-00620312.
PR 03-AUG-2000; 2000US-00653450.
PR 14-SEP-2000; 2000US-00662191.
PR 19-OCT-2000; 2000US-00693036.
PR 29-NOV-2000; 2000US-00727344.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Liu C, Asundi V, Chen R, Ma Y, Qian XB, Ren F, Wang D;
PI PI Wang J, Wang Z, Wehrman T, Xu C, Xue AJ, Yang Y, Zhang J, Zhao QA;
PI Zhou P, Goodrich R, Drmanac RT;
XX
DR WPI; 2001-442253/47.
DR N-PSDB; AAI58046.
XX
PT Novel nucleic acids and polypeptides, useful for treating disorders such
PT as central nervous system injuries.
XX
PS Example 3; SEQ ID NO 2035; 10078pp; English.
XX
CC The invention relates to human nucleic acids (AAI57798-AAI61369) and the
CC encoded polypeptides (AAM38642-AAM42213) with nootropic,
CC immunosuppressant and cytostatic activity. The polynucleotides are useful
CC in gene therapy. A composition containing a polypeptide or polynucleotide
CC of the invention may be used to treat diseases of the peripheral nervous
CC system, such as peripheral nervous injuries, peripheral neuropathy and
CC localised neuropathies and central nervous system diseases, such as
CC Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC utilisation of the activities such as: immune system suppression,
CC Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
CC and thrombolytic activity, cancer diagnosis and therapy, drug screening,
CC assays for receptor activity, arthritis and inflammation, leukaemias and
CC C.N.S disorders. Note: The sequence data for this patent did not form
CC part of the printed specification
XX
SQ Sequence 117 AA;
Query Match 31.9%; Score 198; DB 4; Length 117;
Best Local Similarity 88.6%; Pred. No. 2.8e-14;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
OY 1 MPSPTVCSLLLLGMLWLDLWLAGSSFLSPHQVQRPHPKAP 44
|||||

Db

RESULT 9

AAB60511
ID AAB60511 standard; protein; 117 AA.
XX
AC AAB60511;
XX
DT 24-APR-2001 (first entry)
XX
DE Human ghrelin preproprotein, SEQ ID NO:5.
XX
KW Growth hormone secretagogue; GHS; ghrelin; precursor; preproprotein;
KW calcium concentration elevation; infant growth disorder;
KW growth hormone deficiency.
XX
OS Homo sapiens.
XX
PN WO200107475-A1.
XX
PD 01-FEB-2001.
XX
PF 24-JUL-2000; 2000WO-JP004907.
XX
PR 23-JUL-1999; 99JP-00210002.
PR 29-NOV-1999; 99JP-00338841.
PR 26-APR-2000; 2000JP-00126623.
XX
PA (KANG/) KANGAWA K.
XX
PI Kangawa K, Kojima M, Hosoda H, Matsuo H, Minamitake Y;
XX WPI; 2001-159704/16.
XX N-PSDB; AAF59645.
XX
PT New peptide compounds which induce growth hormone secretion and elevate
PT cell calcium concentrations, useful in treatment and diagnosis of infant
PT growth disorders.
XX
PS Claim 3; Page 182; 210pp; Japanese.
XX
CC The invention relates to a novel peptide compound or its salt which
CC induces the secretion of growth hormone and/or elevates calcium ion
CC concentration in cells. The peptides are ghrelin homologues and are
CC characterised in that at least one amino acid has been substituted by a
CC modified amino acid and/or a non-amino acid compound. The invention also
CC encompasses the unmodified peptides; the DNA encoding the peptides;
CC vectors and host cells comprising such DNA; a method of producing the
CC peptides comprising recombinant production, optionally followed by
CC chemical modification; an antibody specific for a peptide of the
CC invention; and an assay and kit for detecting the peptides. The peptides
CC of the invention are useful for treating and/or diagnosing diseases
CC caused by a deficiency in growth hormone expression or activity. In
CC particular, they are useful for promoting infant growth due to growth
CC hormone deficiency. The compounds of the invention are safe with no
CC accompanying side effects. The present sequence represents a ghrelin-type
CC growth hormone secretagogue (GHS) precursor protein of the invention
XX
SQ Sequence 117 AA;
Query Match 31.9%; Score 198; DB 4; Length 117;
Best Local Similarity 88.6%; Pred. No. 2.8e-14;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
OY 1 MPSPTVCSLLLLGMLWLDLWLAGSSFLSPHQVQRPHPKAP 44
|||||

Db

RESULT 10

ABB78319
ID ABB78319 standard; protein; 117 AA.

KW infection; human immunodeficiency virus; vaccine; antihypoglycaemic;
KW adsorption enhancer; gastrointestinal disease; growth related disease;
KW inflammation; gene therapy; growth regulation; blood vessel formation;
KW HIV; zsig33 protein.
XX
OS Homo sapiens.
XX
XX Key Location/Qualifiers
FH Peptide 1..23
FT /label= Signal_peptide
FT Protein 24..117
FT /note= "Human mature zsig33 protein"
XX
PN WO200187933-A2.
XX
XX 22-NOV-2001.
XX
XX 10-MAY-2001; 2001WO-US015091.
XX
XX 11-MAY-2000; 2000US-00569271.
XX
XX (ZYMO) ZYMOGENETICS INC.
XX
XX Jaspers SR, Sheppard PO, Deisher TA, Bishop PD;
PI WPI; 2002-082982/11.
XX N-PSDB; AAD25759.
DR
XX
XX New polypeptides, useful for modulating gastric contractility, nutrient
PT uptake, pancreatic secretion of hormones, digestive enzymes and treating
PT gastrointestinal and growth related diseases, comprises zsig33-like
PT peptides.
XX
XX Disclosure; Page 80-81; 89pp; English.
XX

CC The invention relates to zsig33-like peptides (ZS33LP) including zsig33-
CC linker, zsig33-beta, zsig33-gamma, zsig33-delta and zsig33-epsilon
CC peptides and nucleic acid molecules encoding such zsig33-like peptides.
CC ZS33LP peptides activate the immune system in boosting immunity to
CC infectious diseases, treating immunocompromised patients such as human
CC immunodeficiency virus (HIV) patients, in improving vaccines and in
CC treatment of bacterial, viral, protozoal and fungal infections. Peptides
CC of the invention are used to identify and isolate receptors involved in
CC growth regulation in the liver, blood vessel formation and other
CC developmental processes. They are useful for evaluating functions of
CC hypothalamus-pituitary-adrenal axis, to modulate growth and/or
CC differentiation of tumour cells, as additives to anti-hypoglycaemic
CC preparations containing glucose and as adsorption enhancers for oral
CC drugs which require fast nutrient action and to stimulate glucose-induced
CC insulin release. They are also useful as research reagents for the
CC expansion, differentiation, growth factor and hormone secretion and/or
CC cell-cell interactions of tissues associated with gastrointestinal
CC system, brain and central nervous system. These molecules are useful for
CC treating dysfunction associated with contractile tissues or to suppress
CC or enhance contractility in vivo and to treat gastrointestinal and growth
CC related diseases. ZS33LP peptides, nucleic acids and/or antibodies are
CC useful for treating disorders associated with gastrointestinal
CC contractility, secretion of digestive enzymes, hormone and acids,
CC secretion of hormones in the pancreas and/or brain, gastrointestinal
CC motility, recruitment of digestive enzymes, inflammation and regulation
CC of nutrient absorption. Sequences of the invention are useful in gene
CC therapy. The present sequence is human zsig33 protein

SQ Sequence 117 AA;

Query Match 31.9%; Score 198; DB 5; Length 117;
Best Local Similarity 88.6%; Pred. No. 2.8e-14;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

QY 1 MFSPTVCILLIGMLWLDAMAGSSFLSPHQVQRPKAP 44

DB 1 MFSPTVCILLIGMLWLDAMAGSSFLSPHQVQRPKAP 44

RESULT 13
ABUS8046
ID ABUS8046 standard; protein; 117 AA.
XX
XX AC ABUS8046;
XX
XX DT 14-APR-2003 (first entry)
XX DE Human PRO polypeptide #78.
XX KW Human; PRO; cytostatic; tumour; cancer; breast; lung; stomach; liver;
XX KW horse; cow; dog; sheep; cat; goat; pig; rabbit; ADEPT;
XX KW antibody-dependent enzyme mediated prodrug therapy.
XX
XX OS Homo sapiens.
XX
XX PN US2003027163-A1.
XX
XX PD 06-FEB-2003.
XX
XX PF 15-NOV-2001; 2001US-00997666.
XX
XX PR 16-JUN-1997; 97US-0049787P.
XX PR 17-OCT-1997; 97US-0062250P.
XX PR 05-NOV-1997; 97WO-US02008P.
XX PR 12-NOV-1997; 97US-0065186P.
XX PR 13-NOV-1997; 97US-0065311P.
XX PR 24-NOV-1997; 97US-0066770P.
XX PR 25-FEB-1998; 98US-0075945P.
XX PR 20-MAR-1998; 98US-0078910P.
XX PR 28-APR-1998; 98US-0083322P.
XX PR 07-MAY-1998; 98US-0084600P.
XX PR 28-MAY-1998; 98US-0087106P.
XX PR 02-JUN-1998; 98US-0087607P.
XX PR 02-JUN-1998; 98US-0087759P.
XX PR 03-JUN-1998; 98US-0087827P.
XX PR 04-JUN-1998; 98US-0088021P.
XX PR 04-JUN-1998; 98US-0088025P.
XX PR 04-JUN-1998; 98US-0088026P.
XX PR 04-JUN-1998; 98US-0088028P.
XX PR 04-JUN-1998; 98US-0088029P.
XX PR 04-JUN-1998; 98US-0088030P.
XX PR 04-JUN-1998; 98US-0088033P.
XX PR 04-JUN-1998; 98US-0088326P.
XX PR 05-JUN-1998; 98US-0088167P.
XX PR 05-JUN-1998; 98US-0088202P.
XX PR 05-JUN-1998; 98US-0088212P.
XX PR 05-JUN-1998; 98US-0088217P.
XX PR 09-JUN-1998; 98US-0088655P.
XX PR 10-JUN-1998; 98US-0088734P.
XX PR 10-JUN-1998; 98US-0088739P.
XX PR 10-JUN-1998; 98US-0088742P.
XX PR 10-JUN-1998; 98US-0088810P.
XX PR 10-JUN-1998; 98US-0088824P.
XX PR 11-JUN-1998; 98US-0088826P.
XX PR 11-JUN-1998; 98US-0088858P.
XX PR 11-JUN-1998; 98US-0088861P.
XX PR 11-JUN-1998; 98US-0088876P.
XX PR 12-JUN-1998; 98US-0089105P.
XX PR 16-JUN-1998; 98US-0089400P.
XX PR 16-JUN-1998; 98US-0089512P.
XX PR 16-JUN-1998; 98US-0089514P.
XX PR 17-JUN-1998; 98US-0089532P.
XX PR 17-JUN-1998; 98US-0089538P.
XX PR 17-JUN-1998; 98US-0089598P.
XX PR 17-JUN-1998; 98US-0089599P.
XX PR 17-JUN-1998; 98US-0089600P.
XX PR 17-JUN-1998; 98US-0089653P.
XX PR 18-JUN-1998; 98US-0089801P.
XX PR 18-JUN-1998; 98US-0089807P.
XX PR 18-JUN-1998; 98US-0089908P.

DT 28-APR-2003 (first entry)
 XX Novel human secreted or transmembrane protein PRO1066.
 XX Human; PRO; hypertrophy of neonatal heart; angiogenesis; wound healing;
 KW cardiac insufficiency disorder; cancer; tumour; immune response;
 KW adrenal cortical capillary endothelial growth; c-fos induction;
 KW vascular endothelial growth factor inhibition; VEGF inhibition;
 KW endothelial cell growth inhibitor; T-lymphocytes cell survival;
 KW retinal neurons cell survival; rod photoreceptor cell survival;
 KW retinal disorder; retinitis pigmentosa; kidney disorder;
 KW mammalian kidney mesangial cell proliferation; Berger disease;
 KW dermatitis; herpeticiformis; Crohn's disease; chondrocyte proliferation;
 KW chondrocyte redifferentiation; sports injury; arthritis.
 OS Homo sapiens.
 XX
 PN US2002132252-A1.
 XX
 PD 19-SEP-2002.
 XX
 XX 14-NOV-2001; 2001US-00990442.
 XX
 PR 16-JUN-1997; 97US-0049787P.
 PR 17-OCT-1997; 97US-0062250P.
 PR 05-NOV-1997; 97WO-US020069.
 PR 12-NOV-1997; 97US-0065186P.
 PR 13-NOV-1997; 97US-0065311P.
 PR 24-NOV-1997; 97US-0066770P.
 PR 25-FEB-1998; 98US-0075945P.
 PR 20-MAR-1998; 98US-0078910P.
 PR 28-APR-1998; 98US-0083322P.
 PR 07-MAY-1998; 98US-0084600P.
 PR 28-MAY-1998; 98US-0087108P.
 PR 02-JUN-1998; 98US-0087607P.
 PR 02-JUN-1998; 98US-0087609P.
 PR 02-JUN-1998; 98US-0087759P.
 PR 03-JUN-1998; 98US-0087827P.
 PR 04-JUN-1998; 98US-0088021P.
 PR 04-JUN-1998; 98US-0088025P.
 PR 04-JUN-1998; 98US-0088028P.
 PR 04-JUN-1998; 98US-0088029P.
 PR 04-JUN-1998; 98US-0088030P.
 PR 04-JUN-1998; 98US-0088033P.
 PR 04-JUN-1998; 98US-0088328P.
 PR 05-JUN-1998; 98US-0088167P.
 PR 05-JUN-1998; 98US-0088202P.
 PR 05-JUN-1998; 98US-0088212P.
 PR 05-JUN-1998; 98US-0088217P.
 PR 09-JUN-1998; 98US-0088655P.
 PR 10-JUN-1998; 98US-0088734P.
 PR 10-JUN-1998; 98US-0088738P.
 PR 10-JUN-1998; 98US-0088742P.
 PR 10-JUN-1998; 98US-0088810P.
 PR 10-JUN-1998; 98US-0088824P.
 PR 10-JUN-1998; 98US-0088826P.
 PR 11-JUN-1998; 98US-0088858P.
 PR 11-JUN-1998; 98US-0088861P.
 PR 11-JUN-1998; 98US-0088876P.
 PR 12-JUN-1998; 98US-0089105P.
 PR 16-JUN-1998; 98US-0089440P.
 PR 16-JUN-1998; 98US-0089512P.
 PR 16-JUN-1998; 98US-0089514P.
 PR 17-JUN-1998; 98US-0089532P.
 PR 17-JUN-1998; 98US-0089538P.
 PR 17-JUN-1998; 98US-0089598P.
 PR 17-JUN-1998; 98US-0089599P.
 PR 17-JUN-1998; 98US-0089600P.
 PR 17-JUN-1998; 98US-0089653P.
 PR 18-JUN-1998; 98US-0089801P.
 PR 18-JUN-1998; 98US-0089907P.
 PR 18-JUN-1998; 98US-0089908P.

PR 16-SEP-1998; 98WO-US019330.
 PR 17-SEP-1998; 98WO-US019437.
 PR 07-OCT-1998; 98WO-US021141.
 PR 01-DEC-1998; 98WO-US025108.
 PR 05-JAN-1999; 99WO-US000106.
 PR 08-MAR-1999; 99WO-US005028.
 PR 02-JUN-1999; 99WO-US012252.
 PR 15-SEP-1999; 99WO-US021090.
 PR 30-SEP-1999; 99WO-US021547.
 PR 30-NOV-1999; 99WO-US028313.
 PR 01-DEC-1999; 99WO-US028301.
 PR 01-DEC-1999; 99WO-US028634.
 PR 16-DEC-1999; 99WO-US030095.
 PR 20-DEC-1999; 99WO-US030911.
 PR 06-JAN-2000; 2000WO-US000219.
 PR 11-FEB-2000; 2000WO-US003376.
 PR 18-FEB-2000; 2000WO-US004341.
 PR 22-FEB-2000; 2000WO-US004414.
 PR 24-FEB-2000; 2000WO-US004914.
 PR 24-FEB-2000; 2000WO-US005004.
 PR 02-MAR-2000; 2000WO-US005841.
 PR 10-MAR-2000; 2000WO-US006319.
 PR 15-MAR-2000; 2000WO-US006884.
 PR 20-MAR-2000; 2000WO-US007377.
 PR 30-MAR-2000; 2000WO-US008439.
 PR 15-MAY-2000; 2000WO-US013358.
 PR 17-MAY-2000; 2000WO-US013705.
 PR 22-MAY-2000; 2000WO-US014042.
 PR 30-MAY-2000; 2000WO-US014941.
 PR 02-JUN-2000; 2000WO-US015264.
 PR 28-JUL-2000; 2000WO-US020710.
 PR 11-AUG-2000; 2000WO-US022031.
 PR 23-AUG-2000; 2000WO-US023522.
 PR 04-AUG-2000; 2000WO-US023328.
 PR 08-NOV-2000; 2000WO-US030352.
 PR 01-DEC-2000; 2000WO-US032678.
 PR 28-FEB-2001; 2001WO-US006520.
 PR 01-JUN-2001; 2001WO-US017800.
 PR 20-JUN-2001; 2001WO-US019692.
 PR 29-JUN-2001; 2001WO-US021066.
 PR 09-JUL-2001; 2001WO-US021735.
 PR 28-AUG-2001; 2001US-00941992.

(GETH) GENENTECH INC.

PI Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
 PI Ferrara N, Fong S, Gerber H, Gerritsen ME, Goddard A, Godowski PJ;
 PI Grimaldi JC, Gurney AL, Kijavini IJ, Napier MA, Pan J, Paoni NF,
 PI Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PM, Wood WI;
 PI Zhang Z;

XX WPI; 2003-247083/24.
 XX N-FSDB; ABX80294.

XX Novel isolated PRO polypeptides e.g., PRO826, PRO1068, PRO1184, PRO1346
 PT and PRO1375, which stimulate proliferation of stimulated T-lymphocytes
 PT are therapeutically useful for enhancing immune response and in cancer
 PT treatments.

XX Claim 12; Fig 186; 648pp; English.

XX The invention describes an isolated human PRO polypeptide. The PRO
 CC polypeptides are useful in detecting PRO polypeptides in a sample, in
 CC linking a bioactive molecule to a cell expressing a PRO polypeptide, and
 CC in modulating at least one biological activity of a cell expressing a PRO
 CC polypeptide. PRO1312 stimulates hypertrophy of neonatal heart and is thus
 CC useful for treating cardiac insufficiency disorders. PRO1154 and PRO1186
 CC stimulate adrenal cortical capillary endothelial growth, and PRO536,
 CC PRO943, PRO828, PRO826, PRO1068 or PRO535, PRO826, PRO819, and PRO1126,
 CC PRO1360 and PRO1387 induce c-fos in endothelial cells, and are thus
 CC useful for treating conditions or disorders where angiogenesis would be
 CC beneficial, e.g. wound healing and antagonist of this polypeptide are

CC useful for treating cancerous tumours. PRO812 inhibits vascular
CC endothelial growth factor (VEGF) stimulated proliferation of endothelial
CC cells and is thus useful for inhibiting endothelial cell growth in
CC mammals which would be beneficial in inhibiting tumour growth. PRO826,
CC PRO1068, PRO1184, and PRO1346 and PRO1375 stimulate proliferation of
CC stimulated T-lymphocytes and are therapeutically useful for enhancing
CC immune response. PRO828, PRO826, PRO1068 or PRO1132 enhance survival of
CC retinal neurons cells (PRO1132 is also enhances survival/proliferation of
CC rod photoreceptor cells) and therefore are useful for treating retinal
CC disorders of injuries, e.g. retinitis pigmentosa, AMD. PRO819, PRO813
CC and PRO1066 induce proliferation of mammalian kidney mesangial cells,
CC and therefore are useful for treating kidney disorders associated with
CC decreased mesangial cell function such as Berger disease or other
CC nephropathies associated with dermatitis, herpetiformis or Crohn's
CC disease. PRO1310, PRO844, PRO1312, PRO1192 and PRO1387 induce the
CC proliferation and/or redifferentiation of chondrocytes in culture and are
CC thus useful for treating sports injuries, and arthritis. This is the
CC amino acid sequence of a novel human PRO protein

XX Sequence 117 AA;

Query Match 31.9%; Score 198; DB 6; Length 117;
Best Local Similarity 88.6%; Pred. No. 2.8e-14;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

QY 1 MPSPGTVCSLLLGLMLDLAMAGSSFLSPHQVQVRPPHKAP 44

DB 1 MPSPGTVCSLLLGLMLDLAMAGSSFLSPHQVQVRPPHKAP 44

RESULT 15

ABU82636
ID ABU82636 standard; protein; 117 AA.

XX AC ABU82636;

XX DT 26-JUN-2003 (first entry)

XX DE Human secreted/transmembrane protein PRO1066.

KW Human; PRO; secreted protein; transmembrane protein;
KW cardiac insufficiency disorders; angiogenesis; wound healing;
KW cancerous tumour; immune response; retinal disorder; sight loss;
KW retinitis pigmentosa; age-related macular degeneration; AMD;
KW kidney disorder; Berger disease; nephropathy; dermatitis; herpetiformis;
KW Crohn's disease; sports injury; arthritis.

XX OS Homo sapiens.

XX PN US2003032023-A1.

XX PD 13-FEB-2003.

XX PF 14-NOV-2001; 2001US-00990711.

XX PR 16-JUN-1997; 97US-0045787P.

PR 17-OCT-1997; 97US-0062250P.

PR 05-NOV-1997; 97WO-US020069.

PR 12-NOV-1997; 97US-0065186P.

PR 13-NOV-1997; 97US-0065311P.

PR 24-NOV-1997; 97US-0066770P.

PR 25-FEB-1998; 98US-0075945P.

PR 20-MAR-1998; 98US-0078910P.

PR 28-APR-1998; 98US-0083322P.

PR 07-MAY-1998; 98US-0084600P.

PR 28-MAY-1998; 98US-0087106P.

PR 02-JUN-1998; 98US-0087603P.

PR 02-JUN-1998; 98US-0087759P.

PR 03-JUN-1998; 98US-0087827P.

PR 04-JUN-1998; 98US-0088021P.

PR 04-JUN-1998; 98US-0088025P.

PR 04-JUN-1998; 98US-0088026P.

PR 04-JUN-1998; 98US-0088028P.
PR 04-JUN-1998; 98US-0088029P.
PR 04-JUN-1998; 98US-0088030P.
PR 04-JUN-1998; 98US-0088033P.
PR 05-JUN-1998; 98US-0088326P.
PR 05-JUN-1998; 98US-0088167P.
PR 05-JUN-1998; 98US-0088202P.
PR 05-JUN-1998; 98US-0088212P.
PR 05-JUN-1998; 98US-0088217P.
PR 09-JUN-1998; 98US-0088655P.
PR 10-JUN-1998; 98US-0088734P.
PR 10-JUN-1998; 98US-0088738P.
PR 10-JUN-1998; 98US-0088742P.
PR 10-JUN-1998; 98US-0088810P.
PR 10-JUN-1998; 98US-0088824P.
PR 10-JUN-1998; 98US-0088826P.
PR 11-JUN-1998; 98US-0088858P.
PR 11-JUN-1998; 98US-0088861P.
PR 11-JUN-1998; 98US-0088876P.
PR 12-JUN-1998; 98US-0089105P.
PR 16-JUN-1998; 98US-0089440P.
PR 16-JUN-1998; 98US-0089512P.
PR 16-JUN-1998; 98US-0089514P.
PR 17-JUN-1998; 98US-0089532P.
PR 17-JUN-1998; 98US-0089538P.
PR 17-JUN-1998; 98US-0089598P.
PR 17-JUN-1998; 98US-0089599P.
PR 17-JUN-1998; 98US-0089600P.
PR 17-JUN-1998; 98US-0089653P.
PR 18-JUN-1998; 98US-0089801P.
PR 18-JUN-1998; 98US-0089907P.
PR 18-JUN-1998; 98US-0089908P.
PR 19-JUN-1998; 98US-0089947P.
PR 19-JUN-1998; 98US-0089948P.
PR 19-JUN-1998; 98US-0089952P.
PR 22-JUN-1998; 98US-0090246P.
PR 22-JUN-1998; 98US-0090252P.
PR 22-JUN-1998; 98US-0090254P.
PR 23-JUN-1998; 98US-0090349P.
PR 23-JUN-1998; 98US-0090355P.
PR 24-JUN-1998; 98US-0090429P.
PR 24-JUN-1998; 98US-0090431P.
PR 24-JUN-1998; 98US-0090435P.
PR 24-JUN-1998; 98US-0090444P.
PR 24-JUN-1998; 98US-0090445P.
PR 24-JUN-1998; 98US-0090472P.
PR 24-JUN-1998; 98US-0090535P.
PR 24-JUN-1998; 98US-0090540P.
PR 24-JUN-1998; 98US-0090542P.
PR 24-JUN-1998; 98US-0090557P.
PR 25-JUN-1998; 98US-0090676P.
PR 25-JUN-1998; 98US-0090678P.
PR 25-JUN-1998; 98US-0090690P.
PR 25-JUN-1998; 98US-0090694P.
PR 25-JUN-1998; 98US-0090695P.
PR 25-JUN-1998; 98US-0090696P.
PR 26-JUN-1998; 98US-0090862P.
PR 26-JUN-1998; 98US-0090863P.
PR 01-JUL-1998; 98US-0091360P.
PR 01-JUL-1998; 98US-0091544P.
PR 02-JUL-1998; 98US-0091478P.
PR 02-JUL-1998; 98US-0091519P.
PR 02-JUL-1998; 98US-0091626P.
PR 02-JUL-1998; 98US-0091628P.
PR 02-JUL-1998; 98US-0091633P.
PR 02-JUL-1998; 98US-0091646P.
PR 02-JUL-1998; 98US-0091673P.
PR 07-JUL-1998; 98US-0091978P.
PR 07-JUL-1998; 98US-0091982P.
PR 09-JUL-1998; 98US-0092182P.
PR 10-JUL-1998; 98US-0092472P.
PR 20-JUL-1998; 98US-0093339P.
PR 30-JUL-1998; 98US-0094651P.

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OM protein - protein search, using sw model

Run on: December 21, 2005, 13:26:47 ; Search time 38 Seconds
(without alignments)

296.246 Million cell updates/sec

Title: US-10-659-782B-32

Perfect score: 620

Sequence: 1 MPSPGTVCSLLLGLMLDL.....PPSSRRSRSHQSPSP 117

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

PIR 80:*

1: pir1.*

2: pir2.*

3: pir3.*

4: pir4.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Match	Length	DB	ID	Description
1	198	31.9	117	1	A59316	ghrelin precursor
2	158	25.5	117	1	B59316	ghrelin precursor
3	78	12.6	136	2	AG0449	regulator of nucle
4	73.5	11.9	2018	2	T34274	hypothetical prote
5	73	11.8	573	2	JC4335	anti-mullerian hor
6	73	11.8	725	1	E64211	virulence-associat
7	72.5	11.7	555	2	H83043	hypothetical prote
8	72	11.6	666	2	T22943	hypothetical prote
9	71.5	11.5	764	2	I48882	thyrotropin recept
10	70.5	11.4	309	2	S77905	lyase - Pseudomona
11	70.5	11.4	383	2	A56084	interleukin-1beta
12	69	11.1	302	2	H96792	unknown protein P1
13	68	11.1	1487	2	S62048	probable membrane
14	68	11.0	796	2	T32425	hypothetical prote
15	68	11.0	1474	2	B85188	retrotransposon li
16	68	11.0	2088	2	E71436	hypothetical prote
17	67.5	10.9	764	2	A35956	thyrotropin recept
18	67	10.8	187	2	T51876	hypothetical prote
19	67	10.8	363	2	F91265	sensor protein Bas
20	67	10.8	363	2	C86106	sensor protein for
21	67	10.8	363	2	JX0285	sensor protein bas
22	67	10.8	449	2	T39926	hypothetical 51.9K
23	67	10.8	519	2	G84707	probable MYB famil
24	66.5	10.7	263	2	C56084	interleukin-1beta
25	66.5	10.7	311	2	A56084	interleukin-1beta
26	66.5	10.7	749	2	B75560	conserved hypothet
27	66	10.6	428	2	JH0634	site-specific DNA-
28	66	10.6	1001	2	T28897	hypothetical prote
29	65.5	10.6	304	2	S25080	bifunctional cyclo

30	65.5	10.6	307	2	T33503	hypothetical prote
31	65	10.5	1027	2	B64187	conserved hypothet
32	64.5	10.4	381	2	S16506	hypothetical prote
33	64.5	10.4	415	2	S32932	regulatory protein
34	64.5	10.4	708	2	A38436	mitosis initiation
35	64	10.3	188	2	T19507	hypothetical prote
36	64	10.3	354	2	G75548	ABC transporter, A
37	64	10.3	467	1	S45493	serine proteinase
38	64	10.3	502	2	T36589	probable transmem
39	64	10.3	540	2	T27400	hypothetical prote
40	64	10.3	637	2	T03842	fission yeast Skb1
41	64	10.3	695	2	T13648	mitosis initiation
42	64	10.3	749	2	S77175	sensory transduci
43	64	10.3	6805	2	S20901	ctinin - rabbit (fr
44	63.5	10.2	221	2	A57296	ribosomal protein
45	63.5	10.2	746	2	T19409	hypothetical prote

ALIGNMENTS

RESULT 1

A59316

ghrelin precursor - human

N:Alternate names: preproghrelin

C:Species: Homo sapiens (man)

C>Date: 16-Jun-2000 #sequence_revision 16-Jun-2000 #text_change 09-Jul-2004

C:Accession: A59316

R:Kojima, M.; Hosoda, H.; Date, Y.; Nakazato, M.; Matsuo, H.; Kangawa, K.

Nature 402, 656-660, 1999

A:Title: Ghrelin is a growth-hormone-releasing acylated peptide from stomach.

A:Reference number: A59316; MUID:20067959; PMID:10604470

A:Accession: A59316

A>Status: not compared with conceptual translation

A:Molecule type: mRNA

A:Residues: 1-117 <KOJ>

A:Cross-references: UNIPROT:Q9UBU3; UNIPARC:UPI00000362D3; GB:AB029434; NID:g6691571; PII

A:Experimental source: tissue stomach endocrine cells

A>Note: submitted to GenBank, June 1999

C:Comment: Ghrelin secreted by the stomach stimulates the release of somatotropin (growth)

C:Superfamily: motilin

C:Keywords: hormone; lipoprotein; stomach

F:1-23/Domain: signal sequence #status predicted <SIG>

F:24-51/Product: ghrelin #status predicted <MAT>

F:52-117/Domain: carboxyl-terminal propeptide #status predicted <CTP>

F:26/Binding site: octanoate (Ser) (covalent) #status experimental

Query Match 31.9%; Score 198; DB 1; Length 117;
Best Local Similarity 88.6%; Pred. No. 1.7e-13; Indels 0; Gaps 0;
Matches 39; Conservative 0; Mismatches 5;

QY 1 MPSPTVCSLLLGLMLDLAMAGSFLSPHQRVQVRPPHKAP 44

DB 1 MPSPTVCSLLLGLMLDLAMAGSFLSPHQRVQVRPPHKAP 44

RESULT 2

B59316

ghrelin precursor - rat

N:Alternate names: preproghrelin

C:Species: Rattus norvegicus (Norway rat)

C>Date: 16-Jun-2000 #sequence_revision 16-Jun-2000 #text_change 09-Jul-2004

C:Accession: B59316

R:Kojima, M.; Hosoda, H.; Date, Y.; Nakazato, M.; Matsuo, H.; Kangawa, K.

Nature 402, 656-660, 1999

A:Title: Ghrelin is a growth-hormone-releasing acylated peptide from stomach.

A:Reference number: A59316; MUID:20067959; PMID:10604470

A:Accession: B59316

A>Status: not compared with conceptual translation

A:Molecule type: mRNA; protein

A:Residues: 1-117 <KOJ>

A:Cross-references: UNIPROT:Q9QVH7; UNIPARC:UPI000012B411; GB:AB029433; NID:g6691569; PII

A:Experimental source: strain SD; tissue stomach endocrine cells

A>Note: submitted to GenBank, June 1999
 C:Comment: Ghrelin secreted by the stomach stimulates the release of somatotropin (growth hormone) from the hypothalamus.
 C:Superfamily: morilin
 C:Keywords: hormone; lipoprotein; stomach
 F:1-23/Domain: signal sequence #status predicted <SIG>
 F:24-51/Product: ghrelin #status predicted <MAT>
 F:52-117/Domain: carboxyl-terminal propeptide #status predicted <CTP>
 F:26/Binding site: octanoate (Ser) (covalent) #status experimental

Query Match 25.5%; Score 158; DB 1; Length 117;
 Best Local Similarity 40.0%; Pred. No. 2.5e-09;
 Matches 42; Conservative 7; Mismatches 34; Indels 22; Gaps 2;

QY 1 MPSPTVCSLLGLMLDLAMASSFLSPHQVQVPPHKAHVVPALPLSNQCLDLE 60
 DB 1 MVSATICSLLLSLMLMDMASSFLSPHQVQVPPHKAHVVPALPLSNQCLDLE 60

QY 61 QQRH-----LWASVFSQSTKDSGSDLTVSQRTWG 89
 DB 55 GWLHPEDRGQAEAEELIRFNAPFDVGIKLSGAQYQCHGRLG 99

RESULT 3
 AG0449
 regulator of nucleoside diphosphate kinase rnk [imported] - Yersinia pestis (strain CO92)
 C:Species: Yersinia pestis
 C:Date: 02-Nov-2001 #sequence_revision 02-Nov-2001 #text_change 09-Jul-2004
 C:Accession: AG0449
 F:Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prentice, M.B.; deno-Tarraga, A.M.; Chillingworth, T.; Cronin, A.; Davies, R.M.; Davis, P.; Dougan, G.; Hill, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; Whitehead, S.; Barrall, Nature 413, 523-527, 2001
 A:Title: Genome sequence of Yersinia pestis, the causative agent of plague.
 A:Reference number: AB0001; MUID:21470413; PMID:11586360
 A:Accession: AG0449
 A:Status: preliminary
 A:Molecule type: DNA
 A:Residues: 1-136 <KUR>
 A:CROSS-references: UNIPROT:Q8ZAU1; UNIPARC:UPI00000DCABC; GB:AL590842; PIDN:CAC93163.1;
 C:Genetics:
 A:Gene: rnk

Query Match 12.6%; Score 78; DB 2; Length 136;
 Best Local Similarity 26.2%; Pred. No. 0.64;
 Matches 28; Conservative 14; Mismatches 39; Indels 26; Gaps 3;

QY 21 AMAGS---SPLSPHQVQVPPHKAHVVPALPLSNQCLDLE-BQQRHLWASVFSQSTKD 76
 DB 24 AFAGSVVATLNEELDRAEILPPNEIPADVVTMNSRVFLDLSQEEHIRTLYVPASLKD 83

QY 77 SGSDLT-----SRTWGLRVNLFPSS 101
 DB 84 SNEQLSVNAPLGAALLGLHVNDEISWKLPGGDETRITVLELYQPS 130

RESULT 4
 T34274
 hypothetical protein F46H5.4 - Caenorhabditis elegans
 C:Species: Caenorhabditis elegans
 C:Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 09-Jul-2004
 C:Accession: T34274
 R:Nhan, M.
 submitted to the EMBL Data Library, November 1995
 A:Description: The sequence of C. elegans cosmid F46H5.
 A:Reference number: Z21498
 A:Accession: T34274
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-2018 <NHA>
 A:CROSS-references: UNIPROT:Q20487; UNIPARC:UPI0000081BE1; EMBL:U41543; PIDN:AAB37023.1;
 A:Experimental source: strain Bristol N2; clone F46H5
 C:Genetics:
 A:Gene: CESF:F46H5.4

A:Map position: X
 A:Introns: 16/2; 52/3; 87/2; 116/2; 138/2; 203/1; 265/3; 317/2; 337/3; 378/1; 428/1; 482/7/3; 1491/3; 1560/2; 1632/2; 1753/3; 1830/2; 1862/2; 1927/3

Query Match 11.9%; Score 73.5; DB 2; Length 2018;
 Best Local Similarity 31.2%; Pred. No. 37;
 Matches 25; Conservative 7; Mismatches 31; Indels 17; Gaps 4;

QY 38 RPPHKAHVVPALPLSNQCLDLEQQRHLWASVFSQSTKDSGSDLTVS--GRTWGLRVNL 95
 DB 652 RTPHTDEIKLSLP-----CDLNDGHLLFTVYHISKEGSSSTESPIGYTW----- 699

QY 96 LFP--PSSRRSRSHQSPSC 113
 DB 700 -LPYRNGKLSRGNFHPVC 718

RESULT 5
 JC4335
 anti-mullerian hormone type II receptor precursor - human
 C:Species: Homo sapiens (man)
 C:Date: 06-Dec-1995 #sequence_revision 08-Feb-1996 #text_change 05-Oct-2004
 C:Accession: JC4335
 F:Visser, J.A.; McLuskey, A.; van Beers, T.; Weghuis, D.O.; van Kessel, A.G.; Grootegoed, Biochem. Biophys. Res. Commun. 215, 1029-1036, 1995
 A:Title: Structure and chromosomal localization of the human anti-mullerian hormone type II receptor
 A:Reference number: JC4335; MUID:96028015; PMID:7498027
 A:Accession: JC4335
 A:Molecule type: mRNA
 A:Residues: 1-573 <VIS>
 A:CROSS-references: UNIPROT:Q16671; UNIPARC:UPI000016A54B; GB:X91156; NID:gl107671; PIDN:
 C:Comment: This is a receptor for anti-mullerian hormone (see PIR:WFHUM). It plays a critical role in the development of the male reproductive system.
 C:Genetics:
 A:Gene: GDB:AMHR2
 A:CROSS-references: GDB:696210; OMIM:600956

A:Map position: 12q13-12q13
 A:Introns: 16/3; 77/3; 141/3; 167/3; 207/2; 284/2; 322/3; 380/2; 429/3; 475/2

C:Keywords: ATP; hormone receptor; transmembrane protein
 F:1-16/Domain: signal sequence #status predicted <SIG>
 F:17-573/Product: anti-mullerian hormone type II receptor #status predicted <MAT>
 F:17-141/Domain: extracellular hormone binding #status predicted <ELB>
 F:142-167/Domain: transmembrane #status predicted <TM>
 F:201-512/Domain: protein kinase homology <KIN>

Query Match 11.8%; Score 73; DB 2; Length 573;
 Best Local Similarity 27.4%; Pred. No. 10;
 Matches 34; Conservative 15; Mismatches 35; Indels 40; Gaps 6;

QY 3 SPGTVCSS-----LLLGMLWLDLAWAGS---SFLSPHQVQVPPHKA 44
 DB 128 SPGTGSGQGAAPGESIWMALVLLGLFLLLLVLSIILALLQKNYVRGEPVPEPRP 187

QY 45 H-----VVPALPLSNQCLDLEQQRHLWASVFSQSTKDSGSDLTVSQRTWGLRVNL 97
 DB 188 DSGRDWSVELQELP---ELC-----FSQVIREGGHVVWAGLOGLVAIKAF 232

QY 98 PPSS 101
 DB 233 PPRS 236

RESULT 6
 E64211
 virulence-associated protein vacB homolog - Mycoplasma genitalium
 C:Species: Mycoplasma genitalium
 C:Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
 C:Accession: E64211
 R:Fraser, C.M.; Gocayne, J.D.; White, O.; Adams, M.D.; Clayton, R.A.; Fleischmann, R.D.; M.; Fuhmann, J.; Nguyen, D.; Utterback, T.R.; Saudek, D.M.; Phillips, C.A.; Merrick, J.N.; C.A.; Venter, J.C.
 Science 270, 397-403, 1995
 A:Title: The minimal gene complement of Mycoplasma genitalium.
 A:Reference number: A64200; MUID:96026346; PMID:7569993

A:Accession: E64211
A:Status: preliminary; nucleic acid sequence not shown; translation not shown
A:Molecule type: DNA
A:Residues: 1-725 <TIGR>
A:Cross-references: UNIPROT:P47350; UNIPARC:UPI00001344B5; GB:U39690; GB:L43967; NID:g10
A:Experimental source: strain G-37
C:Genetics:
C:Superfamily: virulence-associated protein vacB homolog

Query Match 11.8%; Score 73; DB 1; Length 725;
Best Local Similarity 25.7%; Pred. No. 14;
Matches 26; Conservative 16; Mismatches 39; Indels 20; Gaps 3;

QY 18 LDAMAGSFLSPHQVQVRPPHAP-----HVPALP--LSNQLCDLEQQRLWAS 68
DB 298 LYVAIDVAHYVNRNSEIDIEAKHTSSITLPGHYVVPMLPEQLSNQLCSLNPQKRVV 357

QY 69 VFSQTKDSGLTVSGRTWGLRVNLRLPFPSSRRSRSH 109
DB 358 VCEISFDNQRIKT-----NKLYPATIISKNRFSY 387

RESULT 7
H83043
hypothetical protein PA4822 [imported] - Pseudomonas aeruginosa (strain PA01)
C:Species: Pseudomonas aeruginosa
C:Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
R:Accession: H83043
R:Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warren, P.; Hickey, M.J.; B
adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim,
; Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
A:Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic patho
A:Reference number: AB2950; MUID:20437337; PMID:10984043
A:Accession: H83043
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-555 <STO>
A:Cross-references: UNIPROT:Q9HUY8; UNIPARC:UPI00000C5E23; GB:AE004895; GB:AE004091; NID
A:Experimental source: strain PA01
C:Genetics:
A:Gene: PA4822

Query Match 11.7%; Score 72.5; DB 2; Length 555;
Best Local Similarity 31.3%; Pred. No. 11;
Matches 31; Conservative 9; Mismatches 34; Indels 25; Gaps 4;

QY 9 SILLGLMLWLDIAMAGSFLSPHQVQVRPPHAPVVPALPLSNQLCDLEQQRLWAS 68
DB 420 SLLPLMRWAGSRAGSEF---ELGRM-----LPLQ---AVIEESLHLAIS 459

QY 69 VFSQTKDSGLTVSGRTWGLRVNLRLPFPSSRRSR 107
DB 460 AFLREDLDAALRLV-----KKLLQLRLADASRRFR 493

RESULT 8
T22943
hypothetical protein F58G11.3 - Caenorhabditis elegans
C:Species: Caenorhabditis elegans
C:Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C:Accession: T22943
R:Percy, C.
submitted to the EMBL Data Library, October 1996
A:Reference number: Z19640
A:Accession: T22943
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-666 <WIL>
A:Cross-references: UNIPROT:P90898; UNIPARC:UPI000007850D; EMBL:Z81094; PIDN:CA803154.1;
A:Experimental source: clone F58G11
C:Genetics:

A:Gene: CESP:F58G11.3
A:Map position: 5
A:Introns: 42/2; 82/2; 153/3; 274/3; 380/1; 569/3; 613/3

Query Match 11.6%; Score 72; DB 2; Length 666;
Best Local Similarity 26.9%; Pred. No. 16;
Matches 32; Conservative 11; Mismatches 42; Indels 34; Gaps 5;

QY 33 QRQVVRPPHAPVVPALPLSNQLCDLEQQR-HLWASVFSQTKDSGSD-----80
DB 537 QRVRVNPQCVKVVVPTLQALAEVRRQEQVEAFNEQPEPSPRLGMGSSHAA 596
QY 81 LTVSGRTWGLRVNL-----LPPSS-----RERSR-----RSHQPSCEP 117
DB 597 SNVSDDGGAQVQVQVKEKSPPKPFTVLLPPMKGAGVKIRPRSRVVLCHSSASSPPSL 655

RESULT 9
I48882
thyrotropin receptor precursor - mouse
N:Alternate names: thyroid-stimulating hormone receptor; TSH receptor
C:Species: Mus musculus (house mouse)
C:Date: 15-Mar-1996 #sequence_revision 15-Mar-1996 #text_change 09-Jul-2004
C:Accession: I48882
R:Stein, S.A.; Oates, E.L.; Hall, C.R.; Grumbles, R.M.; Fernandez, L.M.; Taylor, N.A.; P
Mol. Endocrinol. 8, 129-138, 1994
A:Title: Identification of a point mutation in the thyrotropin receptor of the hyc/hyt h
A:Reference number: A54271; MUID:94224232; PMID:8170469
A:Accession: I48882
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-764 <RES>
A:Cross-references: UNIPROT:P47750; UNIPARC:UPI0000003F87; EMBL:U02602; NID:g575923; PID
C:Genetics:
A:Gene: TSHR
C:Superfamily: glycoprotein hormone receptor; leucine-rich alpha-2-glycoprotein repeat h
C:Keywords: G protein-coupled receptor; transmembrane protein
F:53-76/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR1>
F:77-101/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR2>
F:102-126/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR3>
F:127-151/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR4>
F:152-176/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR5>
F:179-200/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR6>
F:201-226/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR7>

Query Match 11.5%; Score 71.5; DB 2; Length 764;
Best Local Similarity 28.8%; Pred. No. 21;
Matches 32; Conservative 16; Mismatches 50; Indels 13; Gaps 4;

QY 4 PGTVCSSLLGLMLWLDIAMAGSFLSP-----HQRVQVRPPHAPVVPALPLSNQLCDLE 60
DB 3 PGSL--LLLVLLALLSRSLRGKECASPPCECHQEDDFRTCTCKELHRIPSPSTQTLKLI 60

QY 61 QQ--RHLWASVFSQTKDSGLTVSGRTWGLRVNLRLPFPSSRRSRSH 109
DB 61 ETHLKTIPSLAFSSLPNISRILYSIDA-----TLQRLPHSFYNLSKMT 105

RESULT 10
S77905
lyase - Pseudomonas pseudomallei
C:Species: Pseudomonas pseudomallei
C:Date: 21-Apr-1997 #sequence_revision 18-Jul-1997 #text_change 09-Jul-2004
C:Accession: S77905; S36445; S36446
R:Penalosa-Vazquez, A.; Mena, G.L.; Herrera-Batrela, L.; Bailey, A.M.
Appl. Environ. Microbiol. 61, 538-543, 1995
A:Title: Cloning and sequencing of the genes involved in glyphosphate utilization by Peet
A:Reference number: S77905; MUID:96031567; PMID:7574593
A:Accession: S77905
A:Molecule type: DNA
A:Residues: 1-309 <PEN>
A:Cross-references: UNIPROT:Q52502; UNIPARC:UPI00000B6398; EMBL:X74325; NID:g439726; PID
A:Experimental source: strain 22

C;Genetics:
A:Gene: glpB
C;Superfamily: Pseudomonas pseudomallei lyase

Query Match 11.4%; Score 70.5; DB 2; Length 309;
Best Local Similarity 22.0%; Pred. No. 9.6;
Matches 29; Conservative 16; Mismatches 36; Indels 51; Gaps 5;

QY 2 PSPGTVCSELLLGLMLDLAMAGSSFLSPHQVQVPPHKAPH-----VVPALPLS 53
DB 14 PEGGIV-----LSGVHKSRGRPPQAAAYLARWKYSPVIAADPRA 53
QY 54 NQLCDLEQORHLWASVFSQSTKDSGLT-----VSGRTWGL-----RVLNRLFF 98
DB 54 PQ-----HSGNSRVDAADRSGSTKTRPNSEEVVICMSKSNVNHPEPRIINSQFA 105
QY 99 PSSRRSRSSHQ 110
DB 106 RKSLNAAKPSHR 117

RESULT 11
A56084
Interleukin-1beta converting enzyme beta isozyme - human
C;Species: Homo sapiens (man)
C;Date: 03-Oct-1995 #sequence_revision 03-Oct-1995 #text_change 09-Jul-2004
C;Accession: A56084
R;Alnemri, E.S.; Fernandes-Alnemri, T.; Litwack, G.
J. Biol. Chem. 270, 4312-4317, 1995
A;Title: Cloning and expression of four novel isoforms of human interleukin-1beta converted
A;Reference number: A56084; MUID:95181414; PMID:7876192
A;Accession: A56084
A;Status: Preliminary
A;Molecule type: mRNA
A;Residues: 1-383 <ALN>
A;Cross-references: UNIPROT:P29466; UNIPARC:UPI000002AB7F; GB:U13697; NID:g171039; PIDN:
C;Genetics:
A;Gene: IL1BCE
C;Keywords: alternative splicing

Query Match 11.4%; Score 70.5; DB 2; Length 383;
Best Local Similarity 22.0%; Pred. No. 12;
Matches 27; Conservative 20; Mismatches 37; Indels 39; Gaps 4;

QY 1 MPSPTVCSELLLGLMLDLAMAGSSFLSPHQVQVPPHKAPHVVPALPLSN----- 54
DB 62 IPKGAQACQICITYICEDESVLAGTGLLSAAPQAVQDN-----PAMPTSSGSEGNV 112
QY 55 QLCDLEQORHLW----ASVFSQSTKDS-----GSDLTVSGRTWGL 90
DB 113 KLCSEEAQRIWKQSAIYIPMDKSSRTRLALICNEEFDSPRTGAEVDITGWTMLL 172
QY 91 RVL 93
DB 173 QNL 175

RESULT 12
H96792
unknown protein F14G6.10 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 05-Oct-2004
C;Accession: H96792
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso,
Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.;
ansen, N.F.; Hughes, B.; Huizar, L.
Nature 408, 816-820, 2000
A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.
C.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziani,
Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon,
ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.
A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.

A;Reference number: A86141; MUID:21016719; PMID:111130712
A;Accession: H96792
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-302 <STO>
A;Cross-references: UNIPROT:Q9C9K7; UNIPARC:UPI00000A0BE5; GB:AE005173; NID:96642668; PID:
C;Genetics:
A;Gene: F14G6.10
A;Map position: 1
C;Superfamily: AT-hook DNA-binding protein

Query Match 11.1%; Score 69; DB 2; Length 302;
Best Local Similarity 31.6%; Pred. No. 13;
Matches 30; Conservative 6; Mismatches 31; Indels 28; Gaps 6;

QY 30 PE-HQRVQVPP-HKAPHVVPALPLSNQLCDLEQORHLWASVFSQSTKDSGLTIVSGRT 87
DB 21 PELHHQLQPPQLHPLPQPQPQPOQONSDE-----SDSNKDPGSDPVTSGST 70
QY 88 WGLRVNLRLFPSSRSRSR-----RSR 109
DB 71 -GKPRGR--PPGSKNPKPPVIVTRDSPNVLRSH 102

RESULT 13
S62048
Probable membrane protein YGL197w - yeast (Saccharomyces cerevisiae)
A;Alternate names: hypothetical protein G1307
C;Species: Saccharomyces cerevisiae
C;Date: 10-Apr-1996 #sequence_revision 19-Apr-1996 #text_change 09-Jul-2004
C;Accession: S62048; S64214
R;Klima, R.; Coglievina, M.; Bertani, I.; Zaccaria, P.; Bruschi, C.V.
submitted to the EMBL Data Library, September 1995
A;Reference number: S62045
A;Accession: S62048
A;Molecule type: DNA
A;Residues: 1-1487 <KLI>
A;Cross-references: UNIPROT:P53094; UNIPARC:UPI0000052E6A; EMBL:X91837; NID:g1177627; PID:
R;Bruschi, C.V.; Coglievina, M.; Bertani, I.; Klima, R.; Zaccaria, P.; Delneri, D.
submitted to the Protein Sequence Database, May 1996
A;Reference number: S64183
A;Accession: S64214
A;Molecule type: DNA
A;Residues: 1-1487 <BRU>
A;Cross-references: UNIPARC:UPI0000052E6A; EMBL:Z72719; NID:g1322824; PID:g2433500; PID:g1
A;Experimental source: strain S288C
C;Genetics:
A;Gene: SGD:MDS3
A;Cross-references: SGD:S0003165; MIPS:YGL197w
A;Map position: 7L
C;Keywords: transmembrane protein
F:1034-1050/Domain: transmembrane #status predicted <TM1>
F:1052-1068/Domain: transmembrane #status predicted <TM2>

Query Match 11.1%; Score 69; DB 2; Length 1487;
Best Local Similarity 25.7%; Pred. No. 78;
Matches 37; Conservative 10; Mismatches 37; Indels 60; Gaps 6;

QY 25 SSFLSPHQVQVPPHKAPHVVPALPL-----SNQLCDLEQ-----QRHLWASVF 70
DB 769 SSISEAEHQ-----RASHPLTSPFLFEDSGTFCGKQLQQLQOHTIQNPHNLSPPRF 821
QY 71 SQSTKDSGLTIVSGRTWG-----LRVLNRLFPSSRE----- 103
DB 822 SRSARSIISYSSSSDRRGNSISRSRTSDSFGTTPVLGVNLVPLPQOTREPNEPPPCPA 881
QY 104 -----RSRRS-----RQPS CSP 115
DB 882 MSTGSNTRRNTLTIDYHNSKASP 905

RESULT 14

Query Match	11.0%;	Score 68;	DB 2;	Length 1474;
Best Local Similarity	27.0%;	Pred. No. 99;		
Matches	30;	Conservative 19;	Mismatches 42;	Indels 20; Gaps 5;
Qy	16	LWLDLAWAGSFL--SPEHORVQVRPPHKAPHVV----	PALPLSNQLCDLEQQRHLWASVF	70
	:	:	:	:
	:	:	:	:
Db	716	VFLGYSLTQTAYLCFDEHKRL-----YTSRHVVFEASPPFSN----	ITSONSLPTVTF	766
	:	:	:	:
	:	:	:	:
Qy	71	SQSTKD-----SGSDLTVSGRWGLVLRLLFPSPSRERSRRSHQPSCSF	115	
	:	:	:	:
	:	:	:	:
Db	767	EOSSSPLVTLIGSSSVLPSCLSGPCVTLHQOQPPVPTTNSPHSSOPTTSP	817	
	:	:	:	:
	:	:	:	:

Search completed: December 21, 2005, 13:40:37
Job time : 41 secs

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Protein Sequence Searches - February 2005

All of the sequence databases on ABSS have recently been updated.

- Please note that the curators of the UniProt database have purged some temporary accession numbers from the most recent version of UniProt. These sequences have been assigned new permanent accession numbers. The new UniProt record may not contain the previous temporary accession number.
- If you encounter an accession number from an older search run against UniProt (results file extension .rup) that can no longer be found in the database, the permanent record with the new accession number can be found by searching the old accession number in the UniProt Protein Archive database (UniPARC) at:

<http://www.pir.uniprot.org/database/archive.shtml>

If you have any questions regarding this information or your results, please contact any STIC searcher.

When submitting sequence search results for scanning into IFW, please include a copy of this attachment to assist any future Examiners or members of the public who may encounter UniProt temporary accession numbers.

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 21, 2005, 13:26:27 ; Search time 228 Seconds
(without alignments)
362.047 Million cell updates/sec

Title: US-10-659-782B-32
Perfect score: 620
Sequence: 1 MPSPTVCSLLLLGLMLDL.....PPSSRRSRSHQSPSCPEL 117

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

UniProt_05.80.*

1: uniprot_sprot.*

2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	198	31.9	91	Q86YP8 HUMAN	Q86YP8 homo sapien
2	198	31.9	117	Q86YP8 HUMAN	Q86YP8 homo sapien
3	194	31.3	117	Q6UDE7 MACMU	Q6UDE7 macaca mula
4	187	30.2	36	Q5Y392 HUMAN	Q5Y392 homo sapien
5	180	29.0	117	Q86Y6 FELCA	Q86Y6 felis silve
6	171.5	27.7	116	Q86Y6 FELCA	Q86Y6 felis silve
7	165	26.6	117	Q8CH53 MERUN	Q8CH53 meriones un
8	163	26.3	117	Q86Y6 FELCA	Q86Y6 felis silve
9	162	26.1	86	Q811T4 MOUSE	Q811T4 mus musculu
10	162	26.1	117	Q86Y6 FELCA	Q86Y6 felis silve
11	158.5	25.6	78	Q7TSD1 MOUSE	Q7TSD1 mus musculu
12	158	25.5	117	Q86Y6 FELCA	Q86Y6 felis silve
13	157.5	25.4	116	Q863L0 SHEEP	Q863L0 ovis aries
14	150.5	24.3	74	Q67BB5 PIG	Q67BB5 sus scrofa
15	150.5	24.3	118	Q86Y6 FELCA	Q86Y6 felis silve
16	147	23.7	54	Q6SLG1 CAPHI	Q6SLG1 capra hircu
17	146	23.5	54	Q6SLF6 CEREL	Q6SLF6 cervus elap
18	145.5	23.5	116	Q86Y6 FELCA	Q86Y6 felis silve
19	145	23.4	52	Q6SLF9 9CETA	Q6SLF9 bos taurus
20	145	23.4	54	Q6SLF2 ODOHE	Q6SLF2 odocoileus
21	145	23.4	54	Q6SLF8 RANTA	Q6SLF8 rangifer ta
22	142	22.9	54	Q6SLF4 9CETA	Q6SLF4 alces alces
23	135.5	21.9	65	Q6TGF0 PIG	Q6TGF0 sus scrofa
24	133	21.5	54	Q6SLG3 SHEEP	Q6SLG3 ovis aries
25	130	21.0	54	Q6SPC2 BISBI	Q6SPC2 bison bison
26	122.5	19.8	54	Q6SLG5 KOCBR	Q6SLG5 kogia brevi
27	122.5	19.8	54	Q6SLG7 BOVIN	Q6SLG7 bos taurus
28	113.5	18.3	97	Q6SLC3 SHEEP	Q6SLC3 ovis aries
29	101	16.3	35	Q6SPC3 ANIAM	Q6SPC3 antilocapra
30	98.5	15.9	116	Q6VMJ7 9AVES	Q6VMJ7 anser sp. (
31	95	15.3	114	Q6F4B4 TRASC	Q6F4B4 trachemys s

32	95	15.3	124	2	Q6F4B3 TRASC	Q6F4B3 trachemys s
33	93	15.0	116	2	Q6VMJ5 DRONO	Q6VMJ5 dromaeus no
34	93	15.0	116	2	Q6VMJ6 ANAPL	Q6VMJ6 anas platyr
35	81	13.1	100	2	O52856 BACSU	O52856 bacillus su
36	78.5	12.7	1037	2	Q4S8Y6 TETNG	Q4S8Y6 tetraodon n
37	78	12.6	136	2	Q8ZAU1 YERPE	Q8ZAU1 versinia pe
38	78	12.6	136	2	Q65SH9 YERPS	Q65SH9 versinia ps
39	78	12.6	1218	2	Q9W201 DROME	Q9W201 drosophila
40	77	12.4	521	2	Q4WH18 ASPFU	Q4WH18 aspergillus
41	76.5	12.3	615	1	SNX41 EMENI	SNX41 emericella
42	76	12.3	1222	1	WKK4 MOUSE	WKK4 mus musculu
43	76	12.3	1222	2	Q4VAC1 MOUSE	Q4VAC1 mus musculu
44	75.5	12.2	208	2	Q6V501 RABIT	Q6V501 oryctolagus
45	75.5	12.2	402	2	Q5P090 AZOSE	Q5P090 azoarcus ap

ALIGNMENTS

RESULT 1

Q86YP8 HUMAN PRELIMINARY; PRT; 91 AA.
AC Q86YP8;
DT 01-JUN-2003 (Tremblrel. 24, Created)
DT 01-JUN-2003 (Tremblrel. 24, Last sequence update)
DT 01-OCT-2003 (Tremblrel. 25, Last annotation update)
DE Exon 3-deleted preproghrel. variant.
OS Homo sapiens (Human)
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Jeffery P.L., Herington A.C., Chopin L.K.;
RL Submitted (NOV-2002) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY184207; AAC7351.1; -, mRNA.
DR Ensembl; ENSG00000157017; Homo sapiens.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0016608; P:growth hormone-releasing hormone activity; IEA.
DR GO; GO:0050791; P:regulation of physiological process; IEA.
DR InterPro; IPR006738; motilin_ghrel.
DR InterPro; IPR005441; Preproghrel.
DR PANTHER; PTHR14122; Preproghrel; 1.
DR Pfam; PF04644; Motilin_ghrel; 1.
DR PRINTS; PR01624; GHRELIN.
SQ SEQUENCE 91 AA; 9972 MW; E7E532D3A3F8609 CRC64;

Query Match 31.9%; Score 198; DB 2; Length 91;
Best Local Similarity 88.6%; Pred. No. 1e-12;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

Qy 1 MPSPTVCSLLLLGLMLDLAMAGSSFLSPHQVQVRPPHAP 44
Db 1 MPSPTVCSLLLLGLMLDLAMAGSSFLSPHQVQVRPPHAP 44

RESULT 2

GHRL_HUMAN STANDARD; PRT; 117 AA.
ID GHRL_HUMAN
AC Q9UBU3; Q8TAT9; Q9HJR3;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Ghrel. precursor (Growth hormone secretagogue) (Growth hormone releasing peptide) (Motilin-related peptide) (M46 protein) [Contains: Ghrelin-27; Ghrelin-28 (Ghrelin)].
GN Name=GHRL; Synonyms=MTLRP; ORFNames=UNQ524/PRO1066;
OS Homo sapiens (Human)
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;

RV NUCLEOTIDE SEQUENCE [MRNA] (ISOFORM 1), AND ACYLATION OF SER-26.
RP TISSUE=Stomach;
RX MEDLINE=20067959; PubMed=10604470; DOI=10.1038/45230;
RA Kojima M., Hosoda H., Date Y., Nakazato M., Matsuo H., Kangawa K.;
RT Ghrelin is a growth-hormone-releasing acylated peptide from
stomach.";
RL Nature 402:656-660(1999).
RV NUCLEOTIDE SEQUENCE [MRNA] (ISOFORM 1), AND PROTEIN SEQUENCE OF 24-33.
RP TISSUE=Stomach;
RX MEDLINE=20389976; PubMed=10930375;
RA Tomasetto C., Karam S.M., Ribieras S., Masson R., Lefebvre O.,
RT Staub A., Alexander G., Chenard M.-P., Rio M.-C.;
"Identification and characterization of a novel gastric peptide
hormone: the motilin-related peptide.";
RL Gastroenterology 119:395-405(2000).
RV NUCLEOTIDE SEQUENCE [GENOMIC DNA].
RP Wajnaraj M.P., Ten I.S., Gertner J.M., Leibell R.L.;
RT "Genomic organization of the human Ghrelin gene.";
RL J. Endocr. Genet. 1:231-233(2000).
RV NUCLEOTIDE SEQUENCE [MRNA] (ISOFORM 2), TISSUE SPECIFICITY, ACYLATION
OF SER-26, AND MASS SPECTROMETRY.
RP TISSUE=Stomach;
RX PubMed=12414809; DOI=10.1074/jbc.M205366200;
RA Hosoda H., Kojima M., Mizushima T., Shimizu S., Kangawa K.;
RT "Structural divergence of human ghrelin. Identification of multiple
ghrelin-derived molecules produced by post-translational processing.";
RL J. Biol. Chem. 278:64-70(2003).
RV NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1).
RP MEDLINE=22887296; PubMed=12975309; DOI=10.1101/gr.1291003;
RA Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D.T., Brush J.,
RT Eaton J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd P.,
EA Eaton D., Foster J.S., Grimaldi C., Gu Q., Hass P.E., Heldens S.,
RA Huang A., Kim H.S., Klinkowski L., Jin Y., Johnson S., Lee J.,
RA Lewis L., Liao D., Mark M.R., Robbie E., Sanchez C., Schoenfeld J.,
RA Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vagts A.,
RA Vandlen R.L., Watanabe C., Wiedand D., Woods K., Xie M.-H.,
RA Yansura D.G., Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A.D.,
RT Wood W.I., Godowski P.J., Gray A.M.;
"The secreted protein discovery initiative (SPDI), a large-scale
effort to identify novel human secreted and transmembrane proteins: a
bioinformatics assessment.";
RL Genome Res. 13:2265-2270(2003).
RV NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1).
RP TISSUE=Blood;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Datchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.P., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Ustin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grinwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalhus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RV PROTEIN SEQUENCE OF 24-38.

RX PubMed=15340161; DOI=10.1110/ps.04682504;
RA Zhang Z., Henzel W.J.;
RT "Signal peptide prediction based on analysis of experimentally
verified cleavage sites.";
RL Protein Sci. 13:2819-2824(2004).
RV REVIEW.
RP MEDLINE=21203998; PubMed=11306336; DOI=10.1016/S1043-2760(00)00362-3;
RA Kojima M., Hosoda H., Matsuo H., Kangawa K.;
RT Ghrelin: discovery of the natural endogenous ligand for the growth
hormone secretagogue receptor.";
RL Trends Endocrinol. Metab. 12:118-122(2001).
RV FUNCTION: Specific ligand for the growth hormone secretagogue
receptor type 1 (GHSR) inducing the release of growth hormone from
the pituitary. Has an appetite-stimulating effect, induces
adiposity and stimulates gastric acid secretion. Involved in
growth regulation.
CC SUBCELLULAR LOCATION: Secreted.
CC ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=2;
CC Name=1; Synonyms=Ghrelin;
CC IsoId=O9UBU3-1; Sequence=Displayed;
CC Name=2; Synonyms=del-Gln14-ghrelin;
CC IsoId=O9UBU3-2; Sequence=VSP_003245;
CC TISSUE SPECIFICITY: Highest level in stomach. All forms are found
in serum as well. Other tissues compensate for the loss of ghrelin
synthesis in the stomach following gastrectomy.
CC PTM: O-n-octanoylation is essential for activity. The O-n-
decanoylated forms Ghrelin-27-C10 and Ghrelin-28-C10 differ in the
length of the carbon backbone of the carboxylic acid bound to Ser-
26. A small fraction of ghrelin, Ghrelin-28-C10:1, may be modified
with an unsaturated carboxylic acid.
CC MASS SPECTROMETRY: MW=3398.9; MW ERR=0.3; METHOD=Electrospray;
RANGE=24-51 (Ghrelin-28-C10); NOTE=O-decanoylated form (Ref. 4).
CC MASS SPECTROMETRY: MW=3397.2; MW ERR=0.5; METHOD=Electrospray;
RANGE=24-51 (Ghrelin-28-C10:1); NOTE=O-decanoylated form (Ref. 4).
CC MASS SPECTROMETRY: MW=3371.3; MW ERR=0.1; METHOD=Electrospray;
RANGE=24-51 (Ghrelin-28); NOTE=O-octanoylated form (Ref. 4).
CC MASS SPECTROMETRY: MW=3243.6; MW ERR=0.4; METHOD=Electrospray;
RANGE=24-50 (Ghrelin-27-C10); NOTE=O-decanoylated form (Ref. 4).
CC MASS SPECTROMETRY: MW=3214.6; MW ERR=0.6; METHOD=Electrospray;
RANGE=24-50 (Ghrelin-27); NOTE=O-octanoylated form (Ref. 4).
CC SIMILARITY: Belongs to the motilin family.
CC DATABASE: NAME=Atlas Genet. Cytogenet. Oncol. Haematol.;
WWW=http://www.infobiogen.fr/services/chronocancer/Genes/GhrelinID327.html".
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
between the Swiss Institute of Bioinformatics and the EMBL outstation -
the European Bioinformatics Institute. There are no restrictions on its
use as long as its content is in no way modified and this statement is not
removed.
CC EMBL: AB029434; BAA89371.1; -; mRNA.
CC EMBL: AJ252278; CAB65733.1; -; mRNA.
CC EMBL: AF296558; AAG10300.1; -; Genomic_DNA.
CC EMBL: AB035700; BAB19045.1; -; mRNA.
CC EMBL: AY359053; AAO89412.1; -; mRNA.
CC EMBL: BC025791; AAH25791.1; -; mRNA.
CC PIR: A59316; A59316.
CC PDB: 1P7X; Model; A=1-117.
CC Ensembl: ENSG00000157017; Homo sapiens.
CC H-InvDB: HIX0003050; -;
CC MIM: 605353; -;
CC GO: GO:0005615; C:extracellular space; ISS.
CC GO: GO:001664; F:G-protein-coupled receptor binding; ISS.
CC GO: GO:0016608; F:growth hormone-releasing hormone activity; ISS.
CC GO: GO:0007186; P:G-protein coupled receptor protein signalin. . .; ISS.
CC GO: GO:0050791; P:regulation of physiological process; ISS.
CC InterPro: IPR006737; motilin_assoc.
CC InterPro: IPR006738; motilin-ghrelin.
CC InterPro: IPR005441; Preproghrelin.
CC PANTHER: PTHR14122; Preproghrelin; 1.
CC Pfam: PF04643; Motilin_assoc; 1.

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DR Pfam; PF04644; Motilin_ghrelin; 1.
DR PRINTS; PR01624; GHRELIN.
DR ProDom; PD332162; Preproghrelin; 1.
DR 3D-structure; Alternative splicing; Direct protein sequencing;
KW Hormone; Lipoprotein; Signal.
FT SIGNAL 1 23 Ghrelin-28.
FT PEPTIDE 24 51 Ghrelin-27.
FT PEPTIDE 24 50 Ghrelin-27.
FT PROPEP 52 117 Removed in mature form.
FT LIPID 26 26 O-decanoyl serine (in form ghrelin-27-C10)
FT LIPID 26 26 and form ghrelin-28-C10).
FT LIPID 26 26 O-octanoyl serine (in form ghrelin-27 and
FT LIPID 26 26 form ghrelin-28).
FT VARSPLIC 37 37 Missing (in isoform 2).
FT CONFLICT 72 72 /FTID=VSP_003245.
FT SEQUENCE 117 AA; 12911 MW; 39C0572EBEAC2755 CRC64;

Query Match 31.9%; Score 198; DB 1; Length 117;
Best Local Similarity 88.6%; Pred. No. 1.4e-12;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

Qy 1 MPSPGTVCSSLLGLGMLDLAMAGSSFLSPHQVVRPPHKAP 44
Db 1 MPSPGTVCSSLLGLGMLDLAMAGSSFLSPHQVVRPPHKAP 44

RESULT 3
Q6UDE7_MACMU PRELIMINARY; PRT; 117 AA.
AC Q6UDE7;
DT 05-JUL-2004 (Tremblrel. 27, Created)
DT 05-JUL-2004 (Tremblrel. 27, Last sequence update)
DT 01-FEB-2005 (Tremblrel. 29, Last annotation update)
DE Ghrelin.
GN Name=GHRL;
OS Macaca mulatta (Rhesus macaque).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC Cercopitheidae; Cercopitheciae; Macaca.
OC NCBI_TaxID=9544;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX PubMed=14736731; DOI=10.1210/en.2003-1103;
RA Angeloni S.V., Glynn N., Ambrosini G., Garant M.J., Dee Higley J.,
RA Sumi S., Hansen B.C.;
RT "Characterization of the rhesus monkey ghrelin gene and factors
RT influencing ghrelin gene expression and fasting plasma levels.";
RL Endocrinology 145:2197-2205(2004).
DR EMBL; AY372274; AAQ74837.1; -; Genomic_DNA.
DR EMBL; AY371699; AAQ74381.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0016608; F:growth hormone-releasing hormone activity; IEA.
DR GO; GO:0050791; P:regulation of physiological process; IEA.
DR InterPro; IPR006737; motilin_assoc.
DR InterPro; IPR006738; motilin_ghrelin.
DR InterPro; IPR005441; Preproghrelin.
DR PANTHER; PTHR14122; Preproghrelin; 1.
DR Pfam; PF04643; Motilin_assoc; 1.
DR Pfam; PF04644; Motilin_ghrelin; 1.
DR PRINTS; PR01624; GHRELIN.
DR ProDom; PD332162; Preproghrelin; 1.
SQ SEQUENCE 117 AA; 12913 MW; 1B634ACE1E1F19FF CRC64;

Query Match 31.3%; Score 194; DB 2; Length 117;
Best Local Similarity 86.4%; Pred. No. 3.5e-12;
Matches 38; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 MPSPGTVCSSLLGLGMLDLAMAGSSFLSPHQVVRPPHKAP 44
Db 1 MPSPGTVCSSLLGLGMLDLAMAGSSFLSPHQVVRPPHKAP 44

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RESULT 4
Q5Y392_HUMAN PRELIMINARY; PRT; 36 AA.
AC Q5Y392;
DT 25-OCT-2004 (Tremblrel. 28, Created)
DT 25-OCT-2004 (Tremblrel. 28, Last sequence update)
DT 25-OCT-2004 (Tremblrel. 28, Last annotation update)
DE Ghrelin (Fragment).
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OC NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX PubMed=15604212; DOI=10.1210/en.2004-1306;
RA Wei W., Wang G., Qi X., Englander E.W., Greeley G.H. Jr.;
RT "Characterization and regulation of the rat and human ghrelin
RT promoters.";
RL Endocrinology 146:1611-1625(2005).
DR EMBL; AY701846; AAU93610.1; -; Genomic_DNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0016608; F:growth hormone-releasing hormone activity; IEA.
DR InterPro; IPR005441; Preproghrelin.
DR PANTHER; PTHR14122; Preproghrelin; 1.
FT NON_TER 36
SQ SEQUENCE 36 AA; 3887 MW; BEAF2FGABD6968BF CRC64;

Query Match 30.2%; Score 187; DB 2; Length 36;
Best Local Similarity 100.0%; Pred. No. 4.6e-12;
Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MPSPGTVCSSLLGLGMLDLAMAGSSFLSPHQVVRQ 36
Db 1 MPSPGTVCSSLLGLGMLDLAMAGSSFLSPHQVVRQ 36

RESULT 5
GHRL_FELCA STANDARD; PRT; 117 AA.
AC Q6BEG6; O6BEG5;
DT 25-OCT-2004 (Rel. 45, Created)
DT 25-OCT-2004 (Rel. 45, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Ghrelin precursor (Growth hormone secretagogue) (Growth hormone
DE releasing peptide) (Motilin-related peptide).
GN Name=GHRL;
OS Felis silvestris catus (Cat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Felidae;
OC Felinae; Felis.
OC NCBI_TaxID=9685;
RN [1]
RP NUCLEOTIDE SEQUENCE [MRNA] (ISOFORMS 1 AND 2).
RC TISSUE=Stomach;
RA Lin X., Miyazato M., Kaiya H., Ida T., Kangawa K.;
RT "cDNA cloning of feline and caprine ghrelin.";
RL Submitted (JUL-2002) to the EMBL/GenBank/DBJ databases.
CC -1- FUNCTION: Specific ligand for the growth hormone secretagogue
CC receptor type 1 (GHSR) inducing the release of growth hormone from
CC the pituitary. Has an appetite-stimulating effect, induces
CC adiposity and stimulates gastric acid secretion. Involved in
CC growth regulation (By similarity).
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=2;
CC Name=1; Synonyms=Ghrelin;
CC IsoId=Q6BEG6-1; Sequence=Displayed;
CC Name=2; Synonyms=del-Gln14-ghrelin;
CC IsoId=Q6BEG6-2; Sequence=VSP_011626;
CC -1- PTM: O-n-octanoylation is essential for activity (By similarity).
CC -1- SIMILARITY: Belongs to the motilin family.

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 DR EMBL; AB089201; BAD34670.1; -; mRNA.
 DR EMBL; AB089202; BAD34671.1; -; mRNA.
 DR InterPro; IPR006737; motilin_assoc.
 DR InterPro; IPR006738; motilin_ghrelin.
 DR InterPro; IPR005441; Preproghrelin.
 DR PANTHER; PTHR14122; Preproghrelin; 1.
 DR Pfam; PF04643; Motilin_assoc; 1.
 DR Pfam; PF04644; Motilin_ghrelin; 1.
 DR PRINTS; PR01624; GHRELIN.
 DR ProDom; PD332162; Preproghrelin; 1.
 KW Alternative splicing; Hormone; Lipoprotein; Signal.
 FT SIGNAL 1 23 By similarity.
 FT PEPTIDE 24 51 Ghrelin (By similarity).
 FT PROPEP 52 117 Removed in mature form (By similarity).
 FT LIPID 26 26 O-octanoyl serine (By similarity).
 FT VARSPIC 37 37 Missing (in isoform 2).
 FT /FTid=VSP_011826.
 SQ SEQUENCE 117 AA; 12956 MW; 8235A51447FF530 CRC64;

Query Match 29.0%; Score 180; DB 1; Length 117;
 Best Local Similarity 79.5%; Pred. No. 1e-10;
 Matches 35; Conservative 1; Mismatches 8; Indels 0; Gaps 0;

Qy 1 MPSPGTVCSSLLGLMGLWDLAMAGSSFLSPHQVQRPPHAP 44
 Db 1 MPSPGTVCSSLLGLMGLWDLAMAGSSFLSPHQVQRPPHAP 44

RESULT 6

ID GHRL CAPHI STANDARD; PRT; 116 AA.
 AC Q6BEG7;
 DT 25-OCT-2004 (Rel. 45, Created)
 DT 25-OCT-2004 (Rel. 45, Last sequence update)
 DT 13-SEP-2005 (Rel. 48, Last annotation update)
 DE Ghrelin precursor (Growth hormone secretagogue) (Growth hormone releasing peptide) (Motilin-related peptide).
 GN Name=GHRL;
 OS Capra hircus (Goat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae; Caprinae; Capra.
 OC NCBI_TaxID=9925;
 RN [1]
 RP NUCLEOTIDE SEQUENCE [MRNA].
 RC TISSUE=Stomach;
 RA Lin X., Miyazato M., Kalya H., Ida T., Kangawa K.;
 RT "cDNA cloning of feline and caprine ghrelin.";
 RL Submitted (JUL-2002) to the EMBL/GenBank/DBJ databases.
 CC 1- FUNCTION: Specific ligand for the growth hormone secretagogue receptor type 1 (GHSR) inducing the release of growth hormone from the pituitary. Has an appetite-stimulating effect, induces adiposity and stimulates gastric acid secretion. Involved in growth regulation (By similarity).
 CC -1- SUBCELLULAR LOCATION: Secreted.
 CC -1- PTM: O-n-octanoylation is essential for activity (By similarity).
 CC -1- SIMILARITY: Belongs to the motilin family.

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 DR EMBL; AB089200; BAD34669.1; -; mRNA.
 DR InterPro; IPR006737; motilin_assoc.
 DR InterPro; IPR006738; motilin_ghrelin.

DR InterPro; IPR005441; Preproghrelin.
 DR PANTHER; PTHR14122; Preproghrelin; 1.
 DR Pfam; PF04643; Motilin_assoc; 1.
 DR Pfam; PF04644; Motilin_ghrelin; 1.
 DR PRINTS; PR01624; GHRELIN.
 DR ProDom; PD332162; Preproghrelin; 1.
 KW Hormone; Lipoprotein; Signal.
 FT SIGNAL 1 23 By similarity.
 FT PEPTIDE 24 50 Ghrelin (By similarity).
 FT PROPEP 51 116 Removed in mature form (By similarity).
 FT LIPID 26 26 O-octanoyl serine (By similarity).
 SQ SEQUENCE 116 AA; 12935 MW; CDA67971D72E3303 CRC64;
 Query Match 27.7%; Score 171.5; DB 1; Length 116;
 Best Local Similarity 42.9%; Pred. No. 7.6e-10;
 Matches 42; Conservative 13; Mismatches 34; Indels 9; Gaps 2;

Qy 1 MPSPGTVCSSLLGLMGLWDLAMAGSSFLSPHQVQRPPHAPVFPALPLSNQL-CDL 59
 Db 1 MPAPRTTICSLLLSMLWMDLAMAGSSFLSPHQVQRPPHAPVFPALPLSNQL-CDL 60

Qy 60 EQQRH-----LWASVFSQSTKDSGLTVSGRTWG 89

Db 61 GSQEGAEDELEIRFNAPFNIGIKLSGAQSLQHGQTIG 98

RESULT 7

ID Q8CH53 MERUN PRELIMINARY; PRT; 117 AA.
 AC Q8CH53;
 DT 01-MAR-2003 (TrEMBLrel. 23, Created)
 DT 01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
 DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
 DE Ghrelin preproprotein.
 OS Meriones unguiculatus (Mongolian jird) (Mongolian gerbil).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi; Muridae; Gerbillinae; Meriones.
 OC NCBI_TaxID=10047;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX PubMed=14724148; DOI=10.1136/gut.2003.021568;
 RA Suzuki H., Masaoka T., Hosoda H., Ota T., Minegishi Y., Nomura S., Kangawa K., Ishii H.;
 RT "Helicobacter pylori infection modifies gastric and plasma ghrelin dynamics in Mongolian gerbils.";
 RL Gut 53:187-194(2004).
 DR EMBL; AF442491; AA006965.1; -; mRNA.
 DR GO; GO:0005576; C:extracellular region; IEA.
 DR GO; GO:0016608; F:growth hormone-releasing hormone activity; IEA.
 DR GO; GO:0050791; P:regulation of physiological process; IEA.
 DR InterPro; IPR006737; motilin_assoc.
 DR InterPro; IPR006738; motilin_ghrelin.
 DR InterPro; IPR005441; Preproghrelin.
 DR PANTHER; PTHR14122; Preproghrelin; 1.
 DR Pfam; PF04643; Motilin_assoc; 1.
 DR Pfam; PF04644; Motilin_ghrelin; 1.
 DR PRINTS; PR01624; GHRELIN.
 DR ProDom; PD332162; Preproghrelin; 1.
 SQ SEQUENCE 117 AA; 13035 MW; 27657687FC026A74 CRC64;

Query Match 26.6%; Score 165; DB 2; Length 117;
 Best Local Similarity 41.0%; Pred. No. 3.7e-09;
 Matches 43; Conservative 8; Mismatches 32; Indels 22; Gaps 2;

Qy 1 MPSPGTVCSSLLGLMGLWDLAMAGSSFLSPHQVQRPPHAPVFPALPLSNQLCDLE 60
 Db 1 MMSGGTICSLLLGLVLMWDMVAMAGSSFLSPHQVQRPPHAPVFPALPLSNQLCDLE 60

Qy 61 QQRH-----LWASVFSQSTKDSGLTVSGRTWG 89

Db 55 GWLHPDGRGQAEAELEIRFNAPFVDGKLSGAQVQOHRALG 99

RESULT 8

GHRL_MOUSE
 ID GHRL_MOUSE STANDARD; PRT; 117 AA.
 AC Q9EQX0; Q9WU21;
 DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 13-SEP-2005 (Rel. 48, Last annotation update)
 DE Ghrelin precursor (Growth hormone secretagogue) (Growth hormone releasing peptide) (Motilin-related peptide) (M46 protein).
 GN Name=Ghrl; Synonyms=WtLrp;
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridae; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 [1]
 RP NUCLEOTIDE SEQUENCE [MRNA] (ISOFORMS 1 AND 2). PROTEIN SEQUENCE OF 24-30, SUBCELLULAR LOCATION, AND TISSUE SPECIFICITY.
 RC TISSUE-Specific;
 RX MEDLINE=20389976; PubMed=10930375;
 RA Tomasetto C., Karam S.M., Ribieras S., Masson R., Lefebvre O., Staub A., Alexander G., Chenard M.-P., Rio M.-C.;
 RT "Identification and characterization of a novel gastric peptide hormone: the motilin-related peptide.";
 RL Gastroenterology 119:395-405(2000).
 [2]
 RP NUCLEOTIDE SEQUENCE [MRNA] (ISOFORM 1).
 RA Kojima M.;
 RT "Mouse mRNA for preproghrelin.";
 RL Submitted (DEC-1999) to the EMBL/GenBank/DBJ databases.
 [3]
 RP NUCLEOTIDE SEQUENCE [GENOMIC DNA] (ISOFORM 1).
 RA Tanaka M., Hayashida Y., Iguchi T., Nakao N., Nakai N., Nakaishima K.;
 RL Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.
 [4]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 1).
 RC STRAIN=C57BL/6J; TISSUE=Stomach;
 RX MEDLINE=22354683; PubMed=12466851; DOI=10.1038/nature01266;
 RA Okazaki Y., Furuno M., Kasukawa T., Adachi J., Bono H., Kondo S., Nikaido I., Oeato N., Saito R., Suzuki H., Yamanaka I., Kiyosawa H., Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schonbach C., Gojobori T., Baldarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J., Schriml L.M., Kanapin A., Matsuoka H., Batalov S., Beisel K.W., Blake J.A., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousins S., Dalla E., Dragani T.A., Fletcher C.F., Forrest A., Frazer K.S., Gaasterland T., Gariboldi M., Gissi C., Godzik A., Gough J., Grimmond S., Guscinich S., Hirokawa N., Jackson I.J., Jarvis E.D., Kanai A., Kawai H., Kawasawa Y., Kedzierski R.M., King B.L., Konagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A., Maglott D.R., Maltais L., Marchionni L., McKenzie L., Miki H., Nagaishima T., Numata K., Okido T., Pavan W.J., Perte G., Pesole G., Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S., Ravasi T., Reed J.C., Reed D.J., Reid J., Ring B.Z., Ringwald M., Sandelin A., Schneider C., Sempole C.A., Setou M., Shmada K., Sultana R., Takenaka Y., Taylor M.S., Teasdale R.D., Tomita M., Verardo R., Wagner L., Wahlestedt C., Wang Y., Watanabe Y., Wells C., Wilming L.G., Wynshaw-Boris A., Yanagisawa M., Yang I., Yang L., Yuan Z., Zavolan M., Zhu Y., Zimmer A., Carninci P., Hayatsu N., Hirozane-Kishikawa T., Konno H., Nakamura M., Sakazume N., Sato K., Shiraki T., Waki K., Kawai J., Aizawa K., Arakawa T., Fukuda S., Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I., Miyazaki A., Sakai K., Sasaki D., Shibata K., Shinagawa A., Yasunishi A., Yoshino M., Waterston R., Lander E.S., Rogers J., Birney E., Hayashizaki Y.;
 RT "Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs.";
 RL Nature 420:563-573(2002).
 [5]
 RP DEVELOPMENTAL STAGE, AND ACYLATION OF SER-26.
 RX PubMed=15746259; DOI=10.1210/en.2004-0645;
 RA Nishi Y., Hiejima H., Mifune H., Sato T., Kangawa K., Kojima M.;
 RT "Developmental changes in the pattern of ghrelin's acyl modification

and the levels of acyl-modified ghrelins in murine stomach.";
 RL Endocrinology 146:2709-2715(2005).
 [6]

RP REVIEW.
 RX MEDLINE=21203998; PubMed=11306336; DOI=10.1016/S1043-2760(00)00362-3;
 RA Kojima M., Hosoda H., Matsuo H., Kangawa K.;
 RT "Ghrelin: discovery of the natural endogenous ligand for the growth hormone secretagogue receptor.";
 RL Trends Endocrinol. Metab. 12:118-122(2001).
 CC -!- FUNCTION: Specific ligand for the growth hormone secretagogue receptor type 1 (GHSR) inducing the release of growth hormone from the pituitary. Has an appetite-stimulating effect, induces adiposity and stimulates gastric acid secretion. Involved in growth regulation.
 CC -!- SUBCELLULAR LOCATION: Secreted.
 CC -!- ALTERNATIVE PRODUCTS:
 CC Event=Alternative splicing; Named isoforms=2;
 CC Name=1; Synonyms=Ghrelin;
 CC IsoId=Q9EQX0-1; Sequence=Displayed;
 CC IsoId=Q9EQX0-2; Sequence=VSP_003246;
 CC TISSUE SPECIFICITY: Mainly expressed in the gastrointestinal tract with higher levels in the stomach, medium levels in the duodenum, jejunum, ileum and colon. Low expression in the testis and brain.
 CC Not detected in the salivary gland, pancreas, liver and lung.
 CC -!- DEVELOPMENTAL STAGE: Levels of n-octanoylated and n-decanoylated ghrelin drop by one third and 3-fold, respectively, between postnatal weeks 3 and 4 due to change of diet during weaning.
 CC -!- PTM: O-n-octanoylation is essential for activity (by similarity). The O-n-decanoylated form ghrelin-C10 differs in the length of the carbon backbone of the carboxylic acid bound to Ser-26.
 CC -!- SIMILARITY: Belongs to the motilin family.
 CC -----
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not removed.
 CC -----
 DR EMBL; AJ243503; CAB46500.1; -; mRNA.
 DR EMBL; AB035701; BAB19046.1; -; mRNA.
 DR EMBL; AB050078; BAB59857.1; -; Genomic_DNA.
 DR EMBL; AK008658; BAB25814.1; -; mRNA.
 DR EMBL; AK008660; BAB25934.1; -; mRNA.
 DR Ensemble; ENSMUSG0000064177; Mus musculus.
 DR MGI; MGI:1930008; Ghrl.
 DR GO; GO:0005737; Cytoplasm; IDA.
 DR GO; GO:0005615; Extracellular space; TAS.
 DR GO; GO:0005179; F: hormone activity; TAS.
 DR InterPro; IPR006737; motilin_assoc.
 DR InterPro; IPR006738; motilin_ghrelin.
 DR PANTHER; PTHR14122; Preproghrelin.
 DR Pfam; PF04643; Motilin_assoc; 1.
 DR Pfam; PF04644; Motilin_ghrelin; 1.
 DR PRINTS; PR01624; GHRELIN.
 DR ProDom; PD332162; Preproghrelin; 1.
 DR Alternative splicing; Direct protein sequencing; Hormone; Lipoprotein; Signal.
 FT SIGNAL 1 23
 FT PEPTIDE 24 51 Ghrelin.
 FT PROPEP 52 117 Removed in mature form (By similarity).
 FT LIPID 26 26 O-decanoyl serine (in form n-decanoyl ghrelin).
 FT LIPID 26 26 O-octanoyl serine (in form n-octanoyl ghrelin).
 FT VARSPLIC 37 37 Missing (in isoform 2).
 FT FTID=VSP_003246.
 SQ SEQUENCE 117 AA; 13207 MW; EACB49D2E3CA7203 CRC64;
 Query Match 26.3%; Score 163; DB 1; Length 117;
 Best Local Similarity 41.0%; Pred. No. 5.9e-09;
 Matches 43; Conservative 7; Mismatches 33; Indels 22; Gaps 2;

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QY 1 MPSPTVCSSLLGLMLDLAMAGSSFLSPHORVQVPPHKKAPVHPALPLSLNQLCDLE 60
DB 1 MLSSGTICSLLLSLMLMDMAMAGSSFLSPHQKQAQRKESKKP-----PAKLOPRALE 54

QY 61 QQRH-----LWASVFSQSTKDSGDLTVSGRTWG 89
DB 55 GMLHPEDRGQAETEELEIRFNAFFDVGIKLSGAQYQGHGRALG 99

RESULT 9
ID Q811T4_MOUSE PRELIMINARY; PRT; 86 AA.
AC Q811T4_
DT 01-JUN-2003 (TrEMBLrel. 24, Created)
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Exon 4-deleted preproghrelin variant.
GN Name=Ghrl;
OS Mus musculus (Mouse);
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=Swiss;
RX PubMed=15471962; DOI=10.1210/en.2003-1466;
RA Jeffery P.L., Duncan R.P., Yeh A.H., Jaekola R.A., Hammond D.S.,
RA Hexington A.C., Chopin L.K.;
RT "Expression of the ghrelin axis in the mouse: an exon 4-deleted mouse
proghrelin variant encodes a novel C terminal peptide.";
RL Endocrinology 146:432-440(2005).
DR EMBL; AY179430; AAC27350.1; -; mRNA.
DR Ensembl; ENSMUSG0000064177; Mus musculus.
DR MGI; MGI:1930008; Ghrl.
DR GO; GO:0005737; C:cytoplasm; IDA.
DR GO; GO:0005615; C:extracellular space; TAS.
DR GO; GO:0005179; F:hormone activity; TAS.
DR InterPro; IPR006738; Motilin_ghrelin.
DR InterPro; IPR005441; Preproghrelin.
DR PANTHER; PTHR14122; Preproghrelin.
DR Pfam; PF04644; Motilin_ghrelin; 1.
DR PRINTS; PR01624; GHRELIN.
SQ SEQUENCE 86 AA; 9758 MW; B913858874770512 CRC64;

Query Match 26.1%; Score 162; DB 2; Length 86;
Best Local Similarity 70.5%; Pred. No. 5.2e-09;
Matches 31; Conservative 4; Mismatches 9; Indels 0; Gaps 0;

QY 1 MPSPTVCSSLLGLMLDLAMAGSSFLSPHORVQVPPHKKAP 44
DB 1 MLSSGTICSLLLSLMLMDMAMAGSSFLSPHQKQAQRKESKKP 44

RESULT 10
ID GHRL_CANFA STANDARD; PRT; 117 AA.
AC Q9BEF8; Q9BEF7;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Ghrelin precursor (Growth hormone secretagogue) (Growth hormone
releasing peptide) (Motilin-related peptide).
GN Name=GHRL; Synonyms=MTLRP;
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
OC Canis.
OX NCBI_TaxID=9615;
RN [1]
RP NUCLEOTIDE SEQUENCE (MRNA) (ISOFORMS 1 AND 2).
RC TISSUE=Gastric fundus;

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RA Tomasetto C., Wendling C., Rio M.-C., Poitras P.;
RT "Identification of cDNA encoding MTLRP/ghrelin precursor from dog
fundus.";
RL Submitted (JAN-2001) to the EMBL/GenBank/DBJ databases.
RN [2]
RP NUCLEOTIDE SEQUENCE (MRNA) (ISOFORM 1).
RC TISSUE=Stomach;
RA Doi K., Kojima M., Hosoda H., Kaiya H., Matsuo H., Kangawa K.;
RT "Dog ghrelin.";
RL Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Specific ligand for the growth hormone secretagogue
receptor type 1 (GHSR) inducing the release of growth hormone from
the pituitary. Has an appetite-stimulating effect, induces
adiposity and stimulates gastric acid secretion. Involved in
growth regulation (By similarity).
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- ALTERNATIVE PRODUCTS:
Event=Alternative splicing; Named isoforms=2;
Name=1; Synonyms=Ghrelin;
Isoid=Q9BEF8-1; Sequence=Displayed;
Name=2; Synonyms=del-Gln14-ghrelin;
Isoid=Q9BEF8-2; Sequence=VSP_003244;
-!- PTM: O-n-octanoylation is essential for activity (By similarity).
-!- SIMILARITY: Belongs to the motilin family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
between the Swiss Institute of Bioinformatics and the EMBL outstation -
the European Bioinformatics Institute. There are no restrictions on its
use as long as its content is in no way modified and this statement is not
removed.
CC -----
DR EMBL; AJ298295; CAC29155.1; -; mRNA.
DR EMBL; AJ298296; CAC29156.1; -; mRNA.
DR EMBL; AB060700; BAC75929.1; -; mRNA.
DR Ensembl; ENSCAFG0000005129; Canis familiaris.
DR InterPro; IPR006737; motilin_ghrelin.
DR InterPro; IPR005441; Preproghrelin.
DR PANTHER; PTHR14122; Preproghrelin; 1.
DR Pfam; PF04643; Motilin_assoc; 1.
DR Pfam; PF04644; Motilin_ghrelin; 1.
DR PRINTS; PR01624; GHRELIN.
DR PRODOM; PD332162; Preproghrelin; 1.
KW Alternative splicing; Hormone; Lipoprotein; Signal.
FT SIGNAL 1 23 By similarity.
FT PEPTIDE 24 51 Ghrelin (By similarity).
FT PROPEP 52 117 Removed in mature form (By similarity).
FT LIPID 26 26 O-octanoyl serine (By similarity).
FT VARSPPLIC 37 37 Missing (in isoform 2).
FT FTID=VSP_003244.
SQ SEQUENCE 117 AA; 13007 MW; 3E57FED9D1847CF7 CRC64;

Query Match 26.1%; Score 162; DB 1; Length 117;
Best Local Similarity 70.5%; Pred. No. 7.5e-09;
Matches 31; Conservative 5; Mismatches 8; Indels 0; Gaps 0;

QY 1 MPSPTVCSSLLGLMLDLAMAGSSFLSPHORVQVPPHKKAP 44
DB 1 MPSLGTICSLLLSLVMDLMDMAMAGSSFLSPHQKQAQRKESKKP 44

RESULT 11
ID Q7TSD1_MOUSE PRELIMINARY; PRT; 78 AA.
AC Q7TSD1_
DT 01-OCT-2003 (TrEMBLrel. 25, Created)
DT 01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Ghrelin delta2.
GN Name=Ghrl; Synonyms=Ghrelin;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;

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OC Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN NUCLEOTIDE SEQUENCE.
RA Hisatomi H., Nagao K., Hirata H., Kawano K., Hibi N.;
RL Submitted (JUN-2003) to the EMBL/GenBank/DBJ databases.
RE EMBL, AB111891; BAC77409.1; -; mRNA.
DR Ensembl; ENSMUSG00000064177; Mus musculus.
DR MGI; MGI:1930008; Ghrl.
DR GO; GO:0005737; C:cytoplasm; IDA.
DR GO; GO:0005615; C:extracellular space; TAS.
DR GO; GO:0005179; F:hormone activity; TAS.
DR GO; GO:0005179; F:hormone activity; TAS.
DR InterPro; IPR006737; motilin_assoc.
DR InterPro; IPR005441; Preproghrelin.
DR PANTHER; PTHR14122; Preproghrelin.
DR Pfam; PF04643; Motilin_assoc.
DR PRINTS; PR01624; Motilin.
DR ProDom; PD332162; Preproghrelin.
SQ SEQUENCE 78 AA; 8615 MW; AD87B53C9A22FFB CRC64;

Query Match 25.6%; Score 158.5; DB 2; Length 78;
Best Local Similarity 40.7%; Pred. No. 1.1e-08;
Matches 37; Conservative 11; Mismatches 18; Indels 25; Gaps 3;

QY 1 MSPGTVCSLLLLGLWLDLWAGSFLSPHQVQVRPPHKAHVVPALPLSNQLCDLE 60
Db 1 MLSSGTCISLLLLMLMDMAMAGSFLSPHQKQFNAP-----FDVGKILSGAQ 51
QY 61 QQRH-----LWASVFSQSTKDSGD 80
Db 52 YQHGRLGKFLQDILWEEV-----KEAPAD 77

RESULT 12
GHRL_RAT
ID GHRL_RAT STANDARD; PRT; 117 AA.
AC Q9QYH7; Q9ST69;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Ghrelin precursor (Growth hormone secretagogue) (Growth hormone
DE releasing peptide) (Motilin-related peptide).
GN Name=Ghrl;
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP NUCLEOTIDE SEQUENCE [MRNA] (ISOFORM 1), PROTEIN SEQUENCE OF 24-51,
RP MASS SPECTROMETRY, AND ACYLATION OF SER-26.
RC STRAIN=Sprague-Dawley; TISSUE=Stomach;
RX MEDLINE=20067959; PubMed=10604470; DOI=10.1038/45230;
RA Kojima M., Hosoda H., Date Y., Nakazato M., Matsuo H., Kangawa K.;
RT "Ghrelin is a growth-hormone-releasing acylated peptide from
RT stomach.";
RL Nature 402:656-660(1999).
RN [2]
RP NUCLEOTIDE SEQUENCE [MRNA] (ISOFORMS 1 AND 2), PROTEIN SEQUENCE OF
RP 24-51, MASS SPECTROMETRY, AND ACYLATION OF SER-26.
RC STRAIN=Sprague-Dawley; TISSUE=Stomach;
RX MEDLINE=20357315; PubMed=10801861; DOI=10.1074/jbc.M002784200;
RA Hosoda H., Kojima M., Matsuo H., Kangawa K.;
RT "Purification and characterization of rat des-Gln14-ghrelin, a second
RT endogenous ligand for the growth hormone secretagogue receptor.";
RL J. Biol. Chem. 275:21995-22000(2000).
RN [3]
RP CHARACTERIZATION.
RX MEDLINE=21092536; PubMed=11162448; DOI=10.1006/bbrc.2000.4039;
RA Hosoda H., Kojima M., Matsuo H., Kangawa K.;
RT "Ghrelin and des-acyl ghrelin: two major forms of rat ghrelin peptide
RT in gastrointestinal tissue.";
RL Biochem. Biophys. Res. Commun. 279:909-913(2000).

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[4]
RN STRUCTURE-ACTIVITY RELATIONSHIP.
RX MEDLINE=21433488; PubMed=11549267; DOI=10.1006/bbrc.2001.5553;
RA Matsumoto M., Hosoda H., Kitajima Y., Morozumi N., Minamitake Y.,
RA Tanaka S., Matsuo H., Kojima M., Hayashi Y., Kangawa K.;
RT "Structure-activity relationship of ghrelin: pharmacological study of
RT ghrelin peptides.";
RL Biochem. Biophys. Res. Commun. 287:142-146(2001).
RN [5]
RP REVIEW.
RX MEDLINE=21203998; PubMed=11306336; DOI=10.1016/S1043-2760(00)00362-3;
RA Kojima M., Hosoda H., Matsuo H., Kangawa K.;
RT "Ghrelin: discovery of the natural endogenous ligand for the growth
RT hormone secretagogue receptor.";
RL Trends Endocrinol. Metab. 12:118-122(2001).
CC -!- FUNCTION: Specific ligand for the growth hormone secretagogue
CC receptor type 1 (GHSR) inducing the release of growth hormone from
CC the pituitary. Has an appetite-stimulating effect. Induces
CC adiposity and stimulates gastric acid secretion. Involved in
CC growth regulation.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=2;
CC Name=1; Synonyms=Ghrel;
CC IsoId=Q9QYH7-1; Sequences=Displayed;
CC Name=2; Synonyms=del-Gln14-ghrelin;
CC IsoId=Q9QYH7-2; Sequences=VSP_003248;
CC -!- TISSUE SPECIFICITY: Broadly expressed with higher expression in
CC the stomach. Very low levels are detected in the hypothalamus,
CC heart, lung, pancreas, intestine and adipose tissue.
CC -!- PTM: O-n-octanoylation is essential for activity. The replacement
CC of Ser-26 by aromatic tryptophan preserves ghrelin activity.
CC -!- MASS SPECTROMETRY: MW=3314.9; MW_ERR=0.7; METHOD=Electrospray;
CC RANGE=24-51 (Q9QYH7-1); NOTE=Ref.1.
CC -!- MASS SPECTROMETRY: MW=3187.1; MW_ERR=0.6; METHOD=Electrospray;
CC RANGE=24-50 (Q9QYH7-2); NOTE=Ref.2.
CC -!- SIMILARITY: Belongs to the motilin family.
CC
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC
CC EMBL; AB029433; BAA89370.1; -; mRNA.
CC EMBL; AB035699; BAB11956.1; -; mRNA.
CC PIR; B59316; B59316.
CC Ensembl; ENSRNOG0000010349; Rattus norvegicus.
CC RGD; 632283; Ghrl.
CC GO; GO:0005615; C:extracellular space; IC.
CC GO; GO:0001664; F:G-protein-coupled receptor binding; IPI.
CC GO; GO:0016608; F:growth hormone-releasing hormone activity; IDA.
CC GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IDA.
CC GO; GO:0050793; P:regulation of physiological process; NAS.
CC InterPro; IPR006737; motilin_assoc.
CC InterPro; IPR006738; motilin_ghrelin.
CC PANTHER; PTHR14122; Preproghrelin.
CC Pfam; PF04643; Motilin_assoc.
CC Pfam; PF04644; Motilin_ghrelin.
CC PRINTS; PR01624; GHRELIN.
CC ProDom; PD332162; Preproghrelin.
KW Alternative splicing; Direct protein sequencing; Hormone; Lipoprotein;
KW Signal.
FT SIGNAL 1 23 Ghrelin.
FT PEPTIDE 24 51 Removed in mature form.
FT PROPEP 52 117 O-octanoyl serine.
FT LIPID 26 26 Missing (in isoform 2).
FT VARSPIC 37 37 /FTID=VSP_003248.
SQ SEQUENCE 117 AA; 13176 MW; 8857546FES1A7691 CRC64;

Query Match 25.5%; Score 158; DB 1; Length 117;

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Best Local Similarity 40.0%; Pred. No. 2e-08;
Matches 42; Conservative 7; Mismatches 34; Indels 22; Gaps 2;

QY 1 MPSPTVCSLLLLGMLDLAMAGSFLSPHQVQVRPPHAPVVPALPLSNQLCDLE 60
DB 1 MVSSATCSLLLSLMDMAMAGSFLSPHQVQVRPPHAPVVPALPLSNQLCDLE 54

QY 61 QQRH-----LWASVFSQSTKDSGLTVSGRTWG 89
DB 55 GHLHEDRQAEAEELIRNAPFDVGILKSGAQYQOQGRALG 99

RESULT 13
Q863L0 SHEEP
ID Q863L0 SHEEP PRELIMINARY; PRT; 116 AA.
AC Q863L0;
DT 01-JUN-2003 (TREMBLrel. 24, Created)
DT 01-JUN-2003 (TREMBLrel. 24, Last sequence update)
DT 01-OCT-2003 (TREMBLrel. 25, Last annotation update)
DE Preproghrel. precursor.
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Caprinae; Ovis.
OC NCBI_TaxID=9940;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Stomach;
RA Doi K., Kojima M., Hosoda H., Kaiya H., Matsuo H., Kangawa K.;
RT "sheep ghrelin.";
RL Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AB060699; BAC75928.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0016608; F:growth hormone-releasing hormone activity; IEA.
DR GO; GO:0050791; P:regulation of physiological process; IEA.
DR InterPro; IPR006737; motilin assoc.
DR InterPro; IPR006738; motilin ghrelin.
DR InterPro; IPR005441; Preproghrel.
DR PANTHER; PTHR14122; Preproghrel.
DR Pfam; PF04643; Motilin_assoc; 1.
DR Pfam; PF04644; Motilin_ghrelin; 1.
DR PRINTS; PR01624; GHRELIN.
DR ProDom; PD332162; Preproghrel.
KW Signal.
FT SIGNAL.
FT CHAIN.
SQ SEQUENCE 116 AA; 12977 MW; B7BECA3DBF0E568E CRC64;

Query Match 25.4%; Score 157.5; DB 2; Length 116;
Best Local Similarity 40.8%; Pred. No. 2.2e-08;
Matches 40; Conservative 14; Mismatches 35; Indels 9; Gaps 2;

QY 1 MPSPTVCSLLLLGMLDLAMAGSFLSPHQVQVRPPHAPVVPALPLSNQL-CDL 59
DB 1 MPAPRTVLSLLLSLMDMAMAGSFLSPHQVQVRPPHAPVVPALPLSNQL-CDL 60

QY 60 EQQRH-----LWASVFSQSTKDSGLTVSGRTWG 89
DB 61 GSQEGAEDELEIRNAPFNIGIKLSGAQSLQHGQTGLG 98

RESULT 14
Q87B85 PIG
ID Q87B85 PIG PRELIMINARY; PRT; 74 AA.
AC Q87B85;
DT 25-OCT-2004 (TREMBLrel. 28, Created)
DT 25-OCT-2004 (TREMBLrel. 28, Last sequence update)
DT 25-OCT-2004 (TREMBLrel. 28, Last annotation update)
DE Ghrelin (Fragment).
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC Sus.

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OX NCBI_TaxID=9823;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Kim K.-S., Rothschild M.F.;
RT "Pig Ghrelin.";
RL Submitted (AUG-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY373019; AAR24571.1; -; Genomic DNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0016608; F:growth hormone-releasing hormone activity; IEA.
DR GO; GO:0050791; P:regulation of physiological process; IEA.
DR InterPro; IPR006738; motilin_ghrelin.
DR InterPro; IPR005441; Preproghrel.
DR PANTHER; PTHR14122; Preproghrel.
DR Pfam; PF04644; Motilin_ghrelin; 1.
DR PRINTS; PR01624; GHRELIN.
FT NON_TER.
SQ SEQUENCE 74 AA; 7980 MW; 875424C2D41FC166 CRC64;

Query Match 24.3%; Score 150.5; DB 2; Length 74;
Best Local Similarity 71.1%; Pred. No. 6.8e-08;
Matches 32; Conservative 4; Mismatches 8; Indels 1; Gaps 1;

QY 1 MPSPTVCSLLLLGMLDLAMAGSFLSPHQVQVRPPHAPVVPALPLSNQLCDLE 44
DB 1 MPSTGTCISLLLSLMDMAMAGSFLSPHQVQVRPPHAPVVPALPLSNQLCDLE 45

RESULT 15
GHRL_PIG
ID GHRL_PIG STANDARD; PRT; 118 AA.
AC Q9QKY5; Q9BGD8; Q9QKY4;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Ghrelin precursor (Growth hormone secretagogue) (Growth hormone releasing peptide) (Motilin-related peptide).
GN Name=GHRL;
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC Sus.
OX NCBI_TaxID=9823;
RN [1]
RP NUCLEOTIDE SEQUENCE [MRNA] (ISOFORMS 1 AND 2).
RA Kojima M.;
RL Submitted (DEC-1999) to the EMBL/GenBank/DBJ databases.
RN [2]
RP NUCLEOTIDE SEQUENCE [MRNA] (ISOFORMS 1 AND 2).
RC TISSUE=Stomach;
RA Rousselle J., Lacroix D., Dubreuil P.;
RL Submitted (MAR-2001) to the EMBL/GenBank/DBJ databases.
CC -I- FUNCTION: Specific ligand for the growth hormone secretagogue receptor type 1 (GHSR) inducing the release of growth hormone from the pituitary. Has an appetite-stimulating effect, induces adiposity and stimulates gastric acid secretion. Involved in growth regulation (By similarity).
CC -I- SUBCELLULAR LOCATION: Secreted (By similarity).
CC -I- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=2;
CC Name=1; Synonym=Ghrelin;
CC IsoId=Q9QKY5-1; Sequence=Displayed;
CC Name=2; Synonym=Ghrelin;
CC IsoId=Q9QKY5-2; Sequence=VSP_003247;
CC -I- PTM: O-n-octanoylation is essential for activity (By similarity).
CC -I- SIMILARITY: Belongs to the motilin family.
CC This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not removed.
CC EMBL; AB035703; BAB19048.1; -; mRNA.

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DR EMBL; AB035704; BAB19049.1; -; mRNA;
DR EMBL; AF308930; AAK19243.1; -; mRNA;
DR EMBL; AY028942; AAK30002.1; -; mRNA;
DR InterPro; IPR006737; motilin_assoc.
DR InterPro; IPR006738; motilin_ghrelin.
DR InterPro; IPR005441; Preproghrelin.
DR PANTHER; PTHR14122; Preproghrelin; 1.
DR Pfam; PF04643; Motilin_assoc; 1.
DR PRINTS; PR01624; Motilin_ghrelin; 1.
DR ProDom; PD332162; Preproghrelin; 1.
KW Alternative splicing; Hormone; Lipoprotein; Signal.
FT SIGNAL 1 24 By similarity.
FT PEPTIDE 25 52 Ghrelin.
FT PROPEP 53 118 Removed in mature form (By similarity).
FT LIPID 27 27 O-octanoyl serine (By similarity).
FT VARSPLIC 38 38 Missing (in isoform 2).
FT FTID=VSP_003247.
FT CONFLICT 17 17 L -> P (in Ref. 2; AAK30002).
FT CONFLICT 72 72 K -> E (in Ref. 2; AAK30002).
SQ SEQUENCE 118 AA; 12786 MW; 856D3E1D6DAB1A76 CRC64;

Query Match 24.3%; Score 150.5; DB 1; Length 118;
Best Local Similarity 71.1%; Pred. No. 1.2e-07;
Matches 32; Conservative 4; Mismatches 8; Indels 1; Gaps 1;

Oy 1 MPSPGTVCSLLLGLMLWL-DLAMAGSSFLSPHQVRVQVRPPHKAP 44
Db 1 MPSTGTICSLLLSVLLMADLAMAGSSFLSPHQVQQRKESKXP 45

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Search completed: December 21, 2005, 13:39:53
 Job time : 230 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 21, 2005, 13:32:33 ; Search time 46 Seconds
(without alignments)
210.284 Million cell updates/sec

Title: US-10-659-782B-32

Perfect score: 620

Sequence: 1 MPSPGTVCISLLGLMLDL.....PPSSRRSRSHQSPCSPEL 117

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Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

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2: /cgn2_6/ptodata/1/iaa/6-COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/H-COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/PCUS-COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/RE-COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	198	31.9	117	2	US-09-046-479-2
2	198	31.9	117	2	US-08-822-897C-2
3	198	31.9	117	2	US-09-608-810A-4
4	198	31.9	117	2	US-09-404-417A-2
5	198	31.9	117	2	US-09-794-987-2
6	198	31.9	117	2	US-09-853-253-2
7	198	31.9	117	2	US-09-991-181-268
8	198	31.9	117	2	US-09-990-444-268
9	198	31.9	117	2	US-09-796-158-2
10	198	31.9	117	2	US-09-997-333-268
11	198	31.9	117	2	US-09-992-598-268
12	78	12.6	28	2	US-09-880-498-1
13	74	11.9	597	2	US-09-949-016-7800
14	73.5	11.9	569	2	US-09-252-991A-27248
15	71.5	11.5	201	2	US-09-902-540-13645
16	71.5	11.5	643	2	US-09-253-991A-21569
17	70.5	11.4	382	2	US-09-949-016-10513
18	70.5	11.4	383	1	US-08-391-916A-4
19	70.5	11.4	383	2	US-09-764-803B-23
20	70.5	11.4	393	2	US-09-248-796A-19806
21	70	11.3	18	2	US-09-404-417A-11
22	69.5	11.2	835	2	US-09-949-016-7379
23	68.5	11.0	439	2	US-10-104-047-3650
24	68	11.0	995	4	PCR-US95-04910-14
25	67.5	10.9	168	2	US-09-252-991A-17387
26	67	10.8	396	2	US-09-134-000C-4470
27	67	10.8	449	1	US-08-489-666C-3

28 67 10.8 449 1 US-08-911-092-3
29 67 10.8 449 1 US-08-485-001B-3
30 67 10.8 449 2 US-08-454-121A-3
31 67 10.8 449 2 US-08-482-161B-3
32 67 10.8 449 2 US-09-057-963A-2
33 67 10.8 973 2 US-09-252-991A-23944
34 66.5 10.7 263 1 US-08-391-916A-8
35 66.5 10.7 311 1 US-08-391-916A-6
36 66 10.6 256 2 US-10-104-047-3255
37 66 10.6 508 2 US-09-252-991A-27892
38 66 10.6 1122 2 US-09-042-460-2
39 65 10.5 303 6 5340334-13
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41 65 10.5 431 2 US-08-990-571-34
42 65 10.5 431 2 US-08-723-142A-34
43 65 10.5 431 2 US-09-528-784A-34
44 65 10.5 431 2 US-09-569-098A-34
45 65 10.5 449 1 US-07-917-722-2

ALIGNMENTS

RESULT 1
US-09-046-479-2
; Sequence 2, Application US/09046479
; Patent No. 6291653
; GENERAL INFORMATION:
; APPLICANT: Sheppard, Paul O.
; APPLICANT: Deisher, Theresa A.
; TITLE OF INVENTION: MOTILIN HOMOLOGS
; NUMBER OF SEQUENCES: 7
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: ZymoGenetics, Inc.
; STREET: 1201 Eastlake Avenue East
; CITY: Seattle
; STATE: WA
; COUNTRY: USA
; ZIP: 98102
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/046,479
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Sawislak, Deborah A.
; REGISTRATION NUMBER: 37,438
; REFERENCE/DOCKET NUMBER: 97-04
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 206-442-6672
; TELEFAX: 206-442-6678
; TELEX:
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 117 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: internal
US-09-046-479-2

Query Match 31.9%; Score 198; DB 2; Length 117;
Best Local Similarity 88.6%; Pred No. 4e-17;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

APPLICATION NUMBER: US/09/794,987
FILING DATE: 27-Feb-2001
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/046,479
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Sawielak, Deborah A
REGISTRATION NUMBER: 37,438
REFERENCE/DOCKET NUMBER: 97-04
TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-442-6672
TELEFAX: 206-442-6678
TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 117 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
FRAGMENT TYPE: internal
SEQUENCE DESCRIPTION: SEQ ID NO: 2:

Query Match 31.9%; Score 198; DB 2; Length 117;
Best Local Similarity 88.6%; Pred. No. 4e-17;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

QY 1 MSPGTVCSSLLGLMLDLNAGSFLSPHQRVQVRPPHKAP 44
DB 1 MSPGTVCSSLLGLMLDLNAGSFLSPHQRVQVRPPHKAP 44

RESULT 6

US-09-853-253-2
Sequence 2, Application US/09853253
Patent No. 6897286
GENERAL INFORMATION:
APPLICANT: JASPERS, STEPHEN
APPLICANT: SHEPPARD, PAUL
APPLICANT: DEISHER, THERESA
APPLICANT: BISHOP, PAUL
TITLE OF INVENTION: Zsig33-like Peptides
FILE REFERENCE: 00-30
CURRENT APPLICATION NUMBER: US/09/853,253
CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: 60/203,300
PRIOR FILING DATE: 2000-05-11
NUMBER OF SEQ ID NOS: 28
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 2
LENGTH: 117
TYPE: PRT
ORGANISM: Homo sapiens
US-09-853-253-2

Query Match 31.9%; Score 198; DB 2; Length 117;
Best Local Similarity 88.6%; Pred. No. 4e-17;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

QY 1 MSPGTVCSSLLGLMLDLNAGSFLSPHQRVQVRPPHKAP 44
DB 1 MSPGTVCSSLLGLMLDLNAGSFLSPHQRVQVRPPHKAP 44

RESULT 7

US-09-991-181-268
Sequence 268, Application US/09991181
Patent No. 6913919
GENERAL INFORMATION:
APPLICANT: Ashkenazi, Avi J.
APPLICANT: Baker, Kevin P.

APPLICANT: Botstein, David
APPLICANT: Deenoyers, Luc
APPLICANT: Eaton, Dan L.
APPLICANT: Ferrara, Napoleone
APPLICANT: Fong, Sherman
APPLICANT: Gerber, Hanspeter
APPLICANT: Gerritsen, Mary E.
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J.
APPLICANT: Grimaldi, J. Christopher
APPLICANT: Gurney, Austin L.
APPLICANT: Kljavin, Ivar J.
APPLICANT: Napier, Mary A.
APPLICANT: Pan, James
APPLICANT: Paoni, Nicholas F.
APPLICANT: ROY, Margaret Ann
APPLICANT: Stewart, Timothy A.
APPLICANT: Tumas, Daniel
APPLICANT: Watanabe, Colin K.
APPLICANT: Williams, P. Mickey
APPLICANT: Wood, William I.
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
FILE REFERENCE: P2730FICS3
CURRENT APPLICATION NUMBER: US/09/991,181
CURRENT FILING DATE: 2001-11-16
PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
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; PRIOR FILING DATE: 1998-07-09

Query Match 31.9%; Score 198; DB 2; Length 117;

Best Local Similarity 88.6%; Pred. No. 4e-17; 0; Mismatches 0; Gaps 0;

Matches 39; Conservative 0;

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Db 1 MPSPTVCSLLLLGMLDLAMAGSFLSPHQVQVRPPHKAP 44

RESULT 8

US-09-990-444-268
; Sequence 268 Application US/09990444
; Patent No. 6930170
; GENERAL INFORMATION:
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Baker, Kevin P.
; APPLICANT: Botstein, David
; APPLICANT: Deanoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Fong, Sherman
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.

APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J.
APPLICANT: Grimaldi, J. Christopher
APPLICANT: Gurney, Austin L.
APPLICANT: Kljavin, Ivar J.
APPLICANT: Napier, Mary A.
APPLICANT: Pan, James
APPLICANT: Paoni, Nicholas F.
APPLICANT: ROY, Margaret Ann
APPLICANT: Stewart, Timothy A.
APPLICANT: Tumas, Daniel
APPLICANT: Watanabe, Colin K.
APPLICANT: Williams, P. Mickey
APPLICANT: Wood, William I.
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
FILE REFERENCE: P2730PIC19
CURRENT APPLICATION NUMBER: US/09/990,444
CURRENT FILING DATE: 2001-11-14
PRIOR APPLICATION NUMBER: 60/049787
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; PRIOR FILING DATE: 1998-07-09

Query March 31.9%; Score 198; DB 2; Length 117;
Best Local Similarity 88.6%; Pred. No. 4e-17;
Matches 39; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

Qy 1 MPSPTVCSLLLLGMLDLAMAGSSFLSPHQVRQVRPPHKAP 44
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Db 1 MPSPTVCSLLLLGMLDLAMAGSSFLSPHQVRQVRPPHKAP 44
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RESULT 11
US-09-992-598-268
; Sequence 268, Application US/09992598
; Patent No. 6956108
; GENERAL INFORMATION:
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Baker, Kevin P.
; APPLICANT: Botstein, David
; APPLICANT: Desnovers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Fong, Sherman
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, J. Christopher
; APPLICANT: Gurney, Austin L.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Napier, Mary A.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K.
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William I.
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: P2730PIC20
; CURRENT APPLICATION NUMBER: US/09/992,598
; CURRENT FILING DATE: 2001-11-14
; PRIOR APPLICATION NUMBER: 60/049787
; PRIOR FILING DATE: 1997-06-16
; PRIOR APPLICATION NUMBER: 60/062250
; PRIOR FILING DATE: 1997-10-17
; PRIOR APPLICATION NUMBER: 60/065186
; PRIOR FILING DATE: 1997-11-12
; PRIOR APPLICATION NUMBER: 60/065311
; PRIOR FILING DATE: 1997-11-13
; PRIOR APPLICATION NUMBER: 60/066770
; PRIOR FILING DATE: 1997-11-24
; PRIOR APPLICATION NUMBER: 60/075945
; PRIOR APPLICATION NUMBER: 60/078910
; PRIOR FILING DATE: 1998-02-25
; PRIOR APPLICATION NUMBER: 60/083322
; PRIOR FILING DATE: 1998-03-20
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; PRIOR FILING DATE: 1998-05-07
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Thu Dec 22 10:58:12 2005

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;; PRIOR FILING DATE: 1998-06-17
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;; PRIOR FILING DATE: 1998-06-17
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;; PRIOR FILING DATE: 1998-07-01
;; PRIOR APPLICATION NUMBER: 60/091478
;; PRIOR FILING DATE: 1998-07-02
;; PRIOR APPLICATION NUMBER: 60/091544
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;; PRIOR APPLICATION NUMBER: 60/091626
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;; PRIOR FILING DATE: 1998-07-07
;; PRIOR APPLICATION NUMBER: 60/091982
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;; PRIOR APPLICATION NUMBER: 60/092182
;; PRIOR FILING DATE: 1998-07-09

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DB 1 MPSGTVCSTLLGLMLDLAMAGSSFLSPHQVQRPHPKAP 44
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; Patent No. 6861409
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; APPLICANT: Zentaris AG
; TITLE OF INVENTION: Growth Hormone Secretagogues
; FILE REFERENCE: 87264-100
; CURRENT APPLICATION NUMBER: US/09/880,498
; CURRENT FILING DATE: 2001-06-13
; PRIOR APPLICATION NUMBER: US Provisional Appln No. 6861409 60/234,928
; PRIOR FILING DATE: 2000-09-26
; PRIOR APPLICATION NUMBER: US Provisional Appln No. 6861409 60/211,326
; PRIOR FILING DATE: 2000-06-13
; NUMBER OF SEQ ID NOS: 1
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; LENGTH: 28
; TYPE: PRT
; ORGANISM: rat
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (3)..(3)
; OTHER INFORMATION: o-n-octanoyl
US-09-880-498-1

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Best Local Similarity 76.2%; Pred. No. 0.0081; 5; Indels 0; Gaps 0;
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DB 1 GSSFLSPHQVQRPHPKAP 21
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RESULT 13
US-09-949-016-7800
; Sequence 7800, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08

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; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7800
; LENGTH: 597
; TYPE: PRT
; ORGANISM: Human
US-09-949-016-7800

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Best Local Similarity 27.4%; Pred. No. 2;
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Db  152 SPGTGSGGQAAGESTWMLVLLGFLLLLLGSLIALLQKNRYRVRGEPVPEPRP 211
Qy  45 H-----VVPALPLSNQLCLEQQRHLWASVFSQSTKDSGLTVSGRTWGLRVLRNLF 97
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Qy  98 PPSS 101
Db  257 PPRS 260

; PRIOR APPLICATION NUMBER: 60/217,883
; PRIOR FILING DATE: 2000-07-10
; NUMBER OF SEQ ID NOS: 16825
; SEQ ID NO 13645
; LENGTH: 201
; TYPE: PRT
; ORGANISM: Myxococcus xanthus
US-09-902-540-13645

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Best Local Similarity 27.6%; Pred. No. 0.89;
Matches 32; Conservative 13; Mismatches 42; Indels 29; Gaps 6;

Qy  10 LLLLGMLWLDLWAGSFLSPHORVVRP-PHKAPHVVPALPLSNQLCLEQQRHL----- 65
Db  7 VLLVGVLGL-ASSAGA-----QEARRPPEHRSP--TPAWAPRGVLLGVSAQDGLVASQ 56
Qy  66 ----WASVFSQSTKDSGLTVSGRTWGLRVLRNLFPP-----PSSRRSRSSRSHOP 111
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; Sequence 27248, Application US/09252991A
; Patent No. 6551795
; GENERAL INFORMATION:
; APPLICANT: Marc J. Rubenfield et al.
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
; FILE REFERENCE: 107196.136
; CURRENT APPLICATION NUMBER: US/09/252.991A
; PRIOR FILING DATE: 1999-02-18
; PRIOR APPLICATION NUMBER: US 60/074,788
; PRIOR FILING DATE: 1998-02-18
; PRIOR APPLICATION NUMBER: US 60/094,190
; PRIOR FILING DATE: 1998-07-27
; NUMBER OF SEQ ID NOS: 33142
; SEQ ID NO 27248
; LENGTH: 569
; TYPE: PRT
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-27248

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Best Local Similarity 31.3%; Pred. No. 2.2;
Matches 31; Conservative 9; Mismatches 34; Indels 25; Gaps 4;

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Qy  69 VFSQSTKDSGLTVSGRTWGLRVLRNLFPPSSRRSR 107
Db  474 AFLREDLDAALRLVAR-----KKLLQRLADASRRFR 507

RESULT 15
US-09-902-540-13645
; Sequence 13645, Application US/09902540
; Patent No. 6833447
; GENERAL INFORMATION:
; APPLICANT: Goldman, Barry S.
; APPLICANT: Hinkle, Gregory J.
; APPLICANT: Slater, Steven C.
; APPLICANT: Wiegand, Roger C.
; TITLE OF INVENTION: Myxococcus xanthus Genome Sequences and Uses Thereof
; FILE REFERENCE: 38-10(15849)B
; CURRENT APPLICATION NUMBER: US/09/902.540
; CURRENT FILING DATE: 2001-07-10
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November 2005

Published_Applications Nucleic Acid and Published_Applications Amino Acid database searches now generate two sets of results each. The Published_Applications databases have been split into two parts to reduce the amount of time required for their daily updates. This results in more machine time being available for processing searches.

Newly published applications will appear in the Published_Applications_New databases; older published applications make up the Published_Applications_Main databases.

- Searches run against Nucleic Acid Published_Applications produce two sets of results, with the extensions **.rnpbm** (Published_Applications_NA_Main) and **.rnpbn** (Published_Applications_NA_New).
- Searches run against Amino Acid Published_Applications produce two sets of results, with the extensions **.rapbm** (Published_Applications_AA_Main) and **.rapbn** (Published_Applications_AA_New).

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 21, 2005, 13:32:53 ; Search time 12 Seconds
(without alignments)

69.538 Million cell updates/sec

Title: US-10-659-782B-32

Perfect score: 620

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Searched: 53982 seqs, 7132107 residues

Total number of hits satisfying chosen parameters: 53982

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA New:

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- 2: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB pep.*
- 3: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB pep.*
- 4: /cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB pep.*
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SUMMARIES

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2	66	10.6	258	6	US-10-821-234-1368
3	63	10.2	303	7	US-11-186-284-193
4	63	10.2	903	6	US-10-689-742-142
5	61.5	9.9	1613	7	US-11-108-528-84
6	61	9.8	96	7	US-11-000-463-931
7	61	9.8	260	7	US-11-182-946-8
8	59.5	9.6	465	6	US-10-873-528-164
9	59.5	9.6	1615	7	US-11-108-528-80
10	58.5	9.4	1613	7	US-11-108-528-86
11	58	9.4	255	7	US-11-147-047-36
12	58	9.4	1627	6	US-10-821-234-1283
13	57.5	9.3	500	7	US-11-087-100-30
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17	57.5	9.3	1503	7	US-11-087-100-6
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19	57.5	9.3	1503	7	US-11-087-085-6
20	57.5	9.3	1798	7	US-11-080-991-96
21	57.5	9.3	2061	7	US-11-077-386-27
22	57	9.2	980	7	US-11-064-246-10
23	57	9.2	1162	6	US-10-451-375-3
24	57	9.2	1198	6	US-10-451-375-4
25	57	9.2	4655	6	US-10-995-561-556

26	56.5	9.1	155	6	US-10-508-263-42	Sequence 42, Appl
27	56.5	9.1	173	6	US-10-667-295-9	Sequence 9, Appl
28	56.5	9.1	198	7	US-11-186-284-101	Sequence 101, App
29	56.5	9.1	317	6	US-10-485-517-196	Sequence 196, App
30	56	9.0	522	7	US-11-080-991-104	Sequence 104, App
31	55.5	9.0	173	7	US-11-093-746A-23	Sequence 23, Appl
32	55.5	9.0	648	7	US-11-109-156-17	Sequence 17, Appl
33	55.5	9.0	1614	7	US-11-108-528-82	Sequence 82, Appl
34	55	8.9	592	6	US-10-467-657-550	Sequence 550, App
35	54.5	8.8	700	7	US-11-186-284-141	Sequence 141, App
36	54	8.7	203	6	US-10-467-657-1560	Sequence 1560, Ap
37	54	8.7	252	6	US-10-467-657-276	Sequence 276, App
38	54	8.7	252	6	US-10-467-657-4008	Sequence 4008, Ap
39	54	8.7	1087	7	US-11-102-978-2	Sequence 2, Appli
40	53.5	8.6	101	7	US-11-082-544-28	Sequence 28, Appl
41	53.5	8.6	201	7	US-11-082-389-112	Sequence 112, App
42	53.5	8.6	240	7	US-11-000-463-248	Sequence 248, App
43	53.5	8.6	311	6	US-10-467-657-3740	Sequence 3740, Ap
44	53.5	8.6	420	6	US-10-454-437-110	Sequence 110, App
45	53.5	8.6	427	7	US-11-182-946-5	Sequence 5, Appli

ALIGNMENTS

RESULT 1
US-10-131-826A-442
; Sequence 442, Application US/10131826A
; Publication No. US20050245730A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
; APPLICANT: DeForge, Laura
; APPLICANT: Desnoyers, Luc
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Sherwood, Steven
; APPLICANT: Smith, Victoria
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K
; APPLICANT: Wood, William
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; FILE REFERENCE: P3330R1C128
; CURRENT APPLICATION NUMBER: US/10/131,826A
; CURRENT FILING DATE: 2002-04-24
; PRIOR APPLICATION NUMBER: 60/049911
; PRIOR FILING DATE: 1997-06-18
; PRIOR APPLICATION NUMBER: 60/056974
; PRIOR FILING DATE: 1997-08-26
; PRIOR APPLICATION NUMBER: 60/059113
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059115
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059117
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; PRIOR APPLICATION NUMBER: 60/059263
; PRIOR FILING DATE: 1997-09-18
; PRIOR APPLICATION NUMBER: 60/059352
; PRIOR FILING DATE: 1997-09-19
; PRIOR APPLICATION NUMBER: 60/059588
; PRIOR FILING DATE: 1997-09-19
; Remaining Prior Application data removed - See File Wrapper or PALM.


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; APPLICANT: Marvin, Martha
; APPLICANT: Li, Dean Y.
; APPLICANT: Wang, Elizabeth
; APPLICANT: Chen, C. M. Any
; APPLICANT: Shamah, Steven M.
; TITLE OF INVENTION: METHODS OF PROMOTING CARDIAC CELL
; FILE REFERENCE: HYDR-P01-041
; CURRENT APPLICATION NUMBER: US/11/108,528
; PRIOR FILING DATE: 2005-04-18
; PRIOR APPLICATION NUMBER: US 60/563,137
; PRIOR FILING DATE: 2004-04-16
; PRIOR APPLICATION NUMBER: US 60/598,368
; PRIOR FILING DATE: 2004-08-02
; NUMBER OF SEQ ID NOS: 86
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; SEQ ID NO 84
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; ORGANISM: Homo sapiens
US-11-108-528-84

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DB 1538 D-----SDYAFRRMT-SVATAKGYTDLNVDSEVPVPPPTPRSQYLSAENYESC 1587
QY 114 SP 115
DB 1588 PP 1589

RESULT 6
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; Sequence 931, Application US/11000463
; Publication No. US20050266423A1
; GENERAL INFORMATION:
; APPLICANT: Tang, Y Tom
; APPLICANT: Liu, Chenghua
; APPLICANT: Asundi, Vinod
; APPLICANT: Chen, Rui-hong
; APPLICANT: Qian, Xiaohong B.
; APPLICANT: Wang, Zhiwei
; APPLICANT: Wehrman, Tom
; APPLICANT: Zhang, Jie
; APPLICANT: Zhou, Ping
; APPLICANT: Cao, Yi-Cheng
; APPLICANT: Drmanac, Radoje T.
; TITLE OF INVENTION: Novel Nucleic Acids and Polypeptides
; FILE REFERENCE: 785CIPACN
; CURRENT APPLICATION NUMBER: US/11/000,463
; CURRENT FILING DATE: 2004-11-29
; PRIOR APPLICATION NUMBER: 10/291,265
; PRIOR FILING DATE: 2002-11-08
; PRIOR APPLICATION NUMBER: PCT/US01/02623
; PRIOR FILING DATE: 2001-01-25
; PRIOR APPLICATION NUMBER: 09/922,279
; PRIOR FILING DATE: 2001-08-03
; PRIOR APPLICATION NUMBER: 09/491,404
; PRIOR FILING DATE: 2000-01-25
; PRIOR APPLICATION NUMBER: 09/617,746
; PRIOR FILING DATE: 2000-07-17
; PRIOR APPLICATION NUMBER: 09/631,451
; PRIOR FILING DATE: 2000-08-03
; PRIOR APPLICATION NUMBER: 09/633,970
; PRIOR FILING DATE: 2000-09-15

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; NUMBER OF SEQ ID NOS: 944
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 931
; LENGTH: 96
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-000-463-931

Query Match
Best Local Similarity 26.3%; Score 61; DB 7; Length 96;
Matches 20; Conservative 7; Mismatches 21; Indels 28; Gaps 3;

QY 41 HKAPHVVPALPLSNLCLEQQRHLWASVFSQSTKDSGLTVSGRTWGLRVNRLFPSP 100
DB 46 HCSRHIVQVSPSSSI-----EAEGSRGSDF-----WGDGCLGRVLPSP 84
QY 101 SRERSRRSHQPSCSPE 116
DB 85 -----IHTVSCSAE 93

RESULT 7
US-11-182-946-8
; Sequence 8, Application US/11182946
; Publication No. US20050255100A1
; GENERAL INFORMATION:
; APPLICANT: Wei, Ying-Fei
; APPLICANT: Ni, Jian
; APPLICANT: Gentz, Reiner
; APPLICANT: Ruben, Steven
; TITLE OF INVENTION: Tumor Necrosis Factor Receptor 5
; FILE REFERENCE: 1488.1280004
; CURRENT APPLICATION NUMBER: US/11/182,946
; CURRENT FILING DATE: 2005-07-18
; PRIOR APPLICATION NUMBER: US/10/186,643
; PRIOR FILING DATE: 2002-07-02
; PRIOR APPLICATION NUMBER: US/09/573,986
; PRIOR FILING DATE: 2000-05-18
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 8
; LENGTH: 260
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-182-946-8

Query Match
Best Local Similarity 20.8%; Score 61; DB 7; Length 260;
Matches 25; Conservative 17; Mismatches 34; Indels 44; Gaps 4;

QY 2 PSPGTVCSS-----LLLLGLMLDLAMAGSFLSPEHQRVQVRPPHKAPHVVPALPLSNQ 55
DB 179 PPQSLCSSDFIRILVIFSGMFLVFTLAGALFL---HQRKYSRNKSGSPVEPAEPCR-- 233
QY 56 LCDLEQQRHLWASVFSQSTKDSGLTVSGRTWGLRVNRLFPSPSSRRSRSHQPS 115
DB 234 -----YSCPREEGSTIPI-----QEDYRKPEPACSP 260

RESULT 8
US-10-873-528-164
; Sequence 164, Application US/10873528
; Publication No. US20050276814A1
; GENERAL INFORMATION:
; APPLICANT: Microbial Technics Limited
; APPLICANT: Gilbert, Christophe FG
; APPLICANT: Hansbro, Philip M
; TITLE OF INVENTION: Proteins
; FILE REFERENCE: PWC/P21129W0
; CURRENT APPLICATION NUMBER: US/10/873,528
; CURRENT FILING DATE: 2004-06-23
; PRIOR APPLICATION NUMBER: US/09/769,787
; PRIOR FILING DATE: 2001-01-26

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Best Local Similarity 20.5%; Pred. No. 12;
Matches 30; Conservative 14; Mismatches 42; Indels 60; Gaps 6;

QY 5 GTVCSLLGLMLDLA-----MAGSFLSPHEHQVVRPP----- 40
DB 23 GHICGSLIAPSWLSAHCFTGQYRCPCPTRRTRSAIPTRKRRANVHYSGSDALL 82
QY 41 ---HKAPHVVPALPLSNQLCDLEQQRH-----LWASVFSQSTKDSGDLTVSG--RTW 88
DB 83 QLAHPTTHTPLCLP-----QPAHRFPFGASCWATGWDQDTSAPLSLPAGTLRNL 133
QY 89 GLRVNLRLFPSSRRSRSHOPS 114
DB 134 RLRLISR-----PTCN 144

RESULT 12

US-10-821-234-1283
; Sequence 1283, Application US/10821234
; Publication No. US20050255114A1
; GENERAL INFORMATION:
; APPLICANT: Labat, Ivan
; APPLICANT: Stache-Crain, Birgit
; APPLICANT: Andarmani, Susan
; APPLICANT: Tang, Y. Tom
; TITLE OF INVENTION: Methods for Diagnosis and Treatment of Presclampsia
; FILE REFERENCE: 821A
; CURRENT APPLICATION NUMBER: US/10/821,234
; CURRENT FILING DATE: 2004-04-07
; PRIOR APPLICATION NUMBER: US 60/462,047
; PRIOR FILING DATE: 2003-04-07
; NUMBER OF SEQ ID NOS: 1704
; SOFTWARE: pt_seq_genes Version 1.0
; SEQ ID NO 1283
; LENGTH: 1627
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-821-234-1283

Query Match 9.4%; Score 58; DB 6; Length 1627;
Best Local Similarity 23.8%; Pred. No. 11e+02;
Matches 29; Conservative 11; Mismatches 46; Indels 36; Gaps 4;

QY 5 GTVCSLLGLMLDLAMAGSFL-----SPEHQVVRPPHKA- 43
DB 707 GSACHLCLEGRILVQVYASNSMPSPGHSPPREAGHPDVEQCKSSVTWSPNSAV 766
QY 44 -PHVVPALPLSNQLCDLE-----QQRHLWASVFSQSTKDSGD-----LTVSGRTW 88
DB 767 NPHVTPACPEPQGCYLEFLYPLVPLVPSLTITWTFVSTWDSSGAVNDIKLLAVSGKNI 826
QY 89 GL 90
DB 827 SL 828

RESULT 13

US-11-087-100-30
; Sequence 30, Application US/11087100
; Publication No. US20050266440A1
; GENERAL INFORMATION:
; APPLICANT: Metz, James
; APPLICANT: Barclay, William
; APPLICANT: Platt, James
; TITLE OF INVENTION: Nucleic Acid Molecule Encoding ORFA of a PUFA Polyketide Synthase
; TITLE OF INVENTION: System and Uses Thereof
; FILE REFERENCE: 2997-29
; CURRENT APPLICATION NUMBER: US/11/087,100
; CURRENT FILING DATE: 2005-03-21
; PRIOR APPLICATION NUMBER: 09/231,899
; PRIOR FILING DATE: 1999-01-14
; PRIOR APPLICATION NUMBER: 60/284,066

; PRIOR FILING DATE: 2001-04-16
; PRIOR APPLICATION NUMBER: 60/298,796
; PRIOR FILING DATE: 2001-06-15
; PRIOR APPLICATION NUMBER: 60/323,269
; PRIOR FILING DATE: 2001-09-18
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 30
; LENGTH: 500
; TYPE: PRT
; ORGANISM: Schizochytrium sp.
US-11-087-100-30

Query Match 9.3%; Score 57.5; DB 7; Length 500;
Best Local Similarity 25.3%; Pred. No. 30;
Matches 25; Conservative 4; Mismatches 41; Indels 29; Gaps 4;

QY 17 WLDLAMAGSFLSPHEHQVVRPPH-----KAPHVVPALPLSNQLCDLEQQRHLW----- 66
DB 395 WFDVMPGSLGVESMFQVLEIAIAHEDLAGARHCQP-----HLCARPRARSSWKYRCQ 448
QY 67 -----ASVFSQSTKDSGDLTVSGRTW--GLRV 92
DB 449 LTPSKKMDSEHVIVSDAHDGVVDLVADGFLWADSLRV 487

RESULT 14

US-11-087-084-30
; Sequence 30, Application US/11087084
; Publication No. US20050273883A1
; GENERAL INFORMATION:
; APPLICANT: Metz, James
; APPLICANT: Barclay, William
; APPLICANT: Platt, James
; APPLICANT: Kuner, Jerry
; TITLE OF INVENTION: Nucleic Acid Molecule Encoding ORFA of a PUFA Polyketide Synthase
; TITLE OF INVENTION: System and Uses Thereof
; FILE REFERENCE: 2997-29
; CURRENT APPLICATION NUMBER: US/11/087,084
; CURRENT FILING DATE: 2005-03-21
; PRIOR APPLICATION NUMBER: 09/231,899
; PRIOR FILING DATE: 1999-01-14
; PRIOR APPLICATION NUMBER: 60/284,066
; PRIOR FILING DATE: 2001-04-16
; PRIOR APPLICATION NUMBER: 60/298,796
; PRIOR FILING DATE: 2001-06-15
; PRIOR APPLICATION NUMBER: 60/323,269
; PRIOR FILING DATE: 2001-09-18
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 30
; LENGTH: 500
; TYPE: PRT
; ORGANISM: Schizochytrium sp.
US-11-087-084-30

Query Match 9.3%; Score 57.5; DB 7; Length 500;
Best Local Similarity 25.3%; Pred. No. 30;
Matches 25; Conservative 4; Mismatches 41; Indels 29; Gaps 4;

QY 17 WLDLAMAGSFLSPHEHQVVRPPH-----KAPHVVPALPLSNQLCDLEQQRHLW----- 66
DB 395 WFDVMPGSLGVESMFQVLEIAIAHEDLAGARHCQP-----HLCARPRARSSWKYRCQ 448
QY 67 -----ASVFSQSTKDSGDLTVSGRTW--GLRV 92
DB 449 LTPSKKMDSEHVIVSDAHDGVVDLVADGFLWADSLRV 487

RESULT 15

US-11-087-085-30
; Sequence 30, Application US/11087085
; Publication No. US20050273884A1

; GENERAL INFORMATION:
; APPLICANT: Metz, James
; APPLICANT: Barclay, William
; APPLICANT: Platt, James
; APPLICANT: Kuer, Jerry
; TITLE OF INVENTION: Nucleic Acid Molecule Encoding ORFA of a PUFA Polyketide Synthase
; TITLE OF INVENTION: System and Uses Thereof
; FILE REFERENCE: 2997-29
; CURRENT APPLICATION NUMBER: US/11/087,085
; CURRENT FILING DATE: 2005-03-21
; PRIOR APPLICATION NUMBER: 09/231,899
; PRIOR FILING DATE: 1999-01-14
; PRIOR APPLICATION NUMBER: 60/284,066
; PRIOR FILING DATE: 2001-04-16
; PRIOR APPLICATION NUMBER: 60/298,796
; PRIOR FILING DATE: 2001-06-15
; PRIOR APPLICATION NUMBER: 60/323,269
; PRIOR FILING DATE: 2001-09-18
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 30
; LENGTH: 500
; TYPE: PRT
; ORGANISM: Schizochytrium sp.
US-11-087-085-30

Query Match 9.3%; Score 57.5; DB 7; Length 500;
Best Local Similarity 25.3%; Pred. No. 30;
Matches 25; Conservative 4; Mismatches 41; Indels 29; Gaps 4;
Qy 17 WLDLWAGSSFLSPHQRVQVRPPH-----KAPHVVPALPLSNQLCDLEQORHLW----- 66
Db 395 WFDVMPGSLGVESMFQLVEAIAHEDLAGKARHCQP-----HLCARPRARSSWKYRGQ 448
Qy 67 -----ASVFSQSTKDSGLTVSGRTW--GLRV 92
Db 449 LTPKSKMDSEVHIVSDAHDGVVDLVADGFLWADSLRV 487

Search completed: December 21, 2005, 13:41:46
Job time : 13 secs